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**ADEQUACY OF U.S. ARMY ATTACK HELICOPTER DOCTRINE TO
SUPPORT THE SCOPE OF ATTACK HELICOPTER
OPERATIONS IN A MULTI-POLAR WORLD**

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

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Fort Leavenworth, Kansas
1994

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Adequacy of U.S. Army Attack Helicopter Doctrine
To Support The Scope of Attack Helicopter Operations
in a Multi-Polar World

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This study examines current U.S. Army attack helicopter doctrine, tactics, techniques, and procedures (DTTP) to determine their adequacy in supporting the full range of attack helicopter employment in the multi-polar environment of the New World Order (NWO). Using the Attack Helicopter Battalion (ATKHB) as the basis, this study determines those missions U.S. Army attack helicopter units will likely perform in carrying out Army operations doctrine, as well as the doctrinal qualities that would facilitate effective and efficient employment of the ATKHB in executing NWO mission requirements.

This study concludes that present U.S. Army attack helicopter DTTP only marginally meets the requirements for employment in support of the full range of Army operations doctrine. This conclusion is based on a lack of versatility and flexibility within current doctrine and on the lack of tactics, techniques, and procedures (TTPs) and evaluative criteria to fulfill doctrinal employment. These shortcomings are attributed to a highly centralized command and control system, an almost exclusive focus on the employment of the ATKHB in a maneuver role in a mid-to-high intensity armor-rich environment, and a comparatively narrow focus on TTPs and mission training at the execution level.

Attack Helicopter, New World Order

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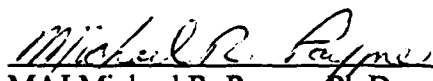
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

ADEQUACY OF U.S. ARMY ATTACK HELICOPTER DOCTRINE TO SUPPORT THE SCOPE OF ATTACK HELICOPTER OPERATIONS IN A MULTI-POLAR WORLD by Major Mark N. Mazarella, USA, 103 pages.

This study examines current U.S. Army attack helicopter doctrine, tactics, techniques, and procedures (DTTP) to determine their adequacy in supporting the full range of attack helicopter employment in the multi-polar environment of the New World Order (NWO). Using the Attack Helicopter Battalion (ATKHB) as the basis, this study determines those missions U.S. Army attack helicopter units will likely perform in carrying out Army operations doctrine, as well as the doctrinal qualities that would facilitate effective and efficient employment of the ATKHB in executing NWO mission requirements.

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LIST OF ACRONYMS

ARI	Aviation Restructure Initiative
ATKHB	Attack Helicopter Battalion
ATKHC	Attack Helicopter Company
BOS	Battlefield Operating Systems
CBRS	Concept Based Requirements System
C3I	Command, Control, Communications, and Intelligence
CSAR	Combat Search and Rescue
DT ⁺ OMS	Doctrine, Training, Leader Development, Organization, Material and Soldier Systems
DTTP	Doctrine, Tactics, Techniques, and Procedures
FLOT	Forward Line of Troops
JAAT	Joint Air Attack Team
LIC	Low Intensity Conflict
METL	Mission Essential Task List
METT-T	Mission, Enemy, Terrain and Weather, Troops, Time Available
MOUT	Military Operations in Urbanized Terrain
MTP	Mission Training Plan
NEO	Non-Combatant Evacuation Operations
NWO	New World Order
OOTW	Operations Other Than War
OPCON	Operational Control
OPFOR	Opposing Forces
SAR	Search and Rescue
SEAD	Suppression of Enemy Air Defenses
SOF	Special Operations Forces
TOE	Table of Organization and Equipment
TOW	Tube-Launched, Optically-Tracked, Wire-Guided Missile
TRADOC	Training and Doctrine Command
TTP	Tactics, Techniques and Procedures

CHAPTER 1

INTRODUCTION

The world has experienced dramatic political and social change during the past three years. The threat the U.S. had focused on for the past 40 years disappeared. This, as well as significant force and budget reductions is causing the United States to reassess not only its National Security Strategy, but also the fundamental doctrine in which its military forces will be employed. Given the expanding roles and missions of attack helicopters in this New World Order (NWO) it is only logical that we conduct an indepth analysis of our attack helicopter doctrine. This analysis will ensure U.S. Army attack helicopter units will train with relevant doctrine in order to be prepared to respond to mission requirements and, if required, achieve swift and decisive victory across the operational continuum characteristic of today's multi-polar world.

Prior to the collapse of the Soviet Union the United States has had the "luxury" of being able to predict with relative certainty the enemy it would face--to include its equipment, organization, and doctrine as well as the terrain upon which its forces would be arrayed. This degree of "certainty" provided the United States Army the ability to establish and perfect its strategic focus as well as its warfighting doctrine. The events of 1990, however, marked the beginning of a new era. The "comfort" provided as a result of certainty no longer exists. Instead, with the collapse of the Soviet Union came the birth of a new world order--one of increased danger and uncertainty.

Thesis Topic

This thesis assesses U.S. Army attack helicopter doctrine, tactics, techniques and procedures (DTTP). Specifically, the goal of this study is to answer the following question: "Does U.S. Army Attack Helicopter Doctrine adequately support the scope of attack helicopter operations in a multi-polar world?"

The term "attack helicopter," as used in the thesis question, applies specifically to the employment of the attack helicopter battalion (ATKHB) and the attack helicopter companies (ATKHCs) that make up the battalion. The study therefore does not evaluate the armored cavalry regiment or reconnaissance squadrons which contain attack helicopter assets, but employ them in accordance with a separate set of DTTP.

Background

No one can state with certainty when the actual first use of an armed helicopter began. However, records from the Korean War reveal that Marines onboard transport helicopters would fire their individual weapons at enemy positions prior to landings. A captured Navy flier owes his freedom to an event performed by one enterprising helicopter crew. Dispatched to the reported location of a downed pilot, the helicopter crew observed that the pilot had already been captured. The helicopter mechanic onboard began firing at the enemy with his rifle, who, apparently caught off guard, fled for safety leaving the flier behind. The helicopter then landed and effected the rescue. On another occasion, an observation helicopter noted the location of enemy automatic weapons positions. Securing phosphorous grenades, the pilot maneuvered over the enemy positions and dropped the grenades on them. The resultant fire drove off the enemy. ¹

Forty years later, during attack helicopter operations in Somalia, the After Action Report states:

The major impact of attack helicopters in Somalia was their psychological effect. This, combined with a judicious use of weapons systems under the rules of engagement combined to make the aircraft an enormously valuable combat multiplier for the commander. On several occasions, the mere presence of the attack helicopters served as a deterrent and caused crowds and vehicles to disperse. . . .

The attack aviation provided the mobile discriminatory firepower required for this type of environment.²

Given the above scenarios one might assume that these aircrews were operating in accordance with established doctrine, tactics, techniques, and procedures in which they had trained. This study will not attempt to specifically confirm or deny this, rather the above examples serve to stimulate thought in answering the broader question: Does current U.S. Army attack helicopter doctrine adequately support the scope of attack helicopter operations in the multi-polar environment which we face today? Before we begin to answer this question, it is important first to understand the definition and role of doctrine and how doctrine relates to tactics, techniques and procedures.

Doctrine provides the starting point for determining what is required.³

FM 22-103, Leadership and Command at Senior Levels

Doctrine, by definition, covers the basic principles by which an Army fights. Doctrine therefore, to be effective, must be written based on the enemy the Army will face. A few short years ago this was not so difficult to do as the U.S. knew (or thought it knew) who its enemy was. Today, as we will see, things are quite different. Nevertheless, the Army must do its best to prepare for the next conflict as well as its expanding role in "Operations Other Than War" (OOTW). As indicated by the quote above, doctrine provides the foundation on which warfighting efforts and capabilities are built. Because of this, there should be nothing more important than to ensure doctrine adequately supports the missions the Army will be called upon to perform. Unfortunately history has shown this has not always been the case. Has the Army learned from its past experiences or is it preparing for the war it just fought?

The Army's keystone warfighting manual FM 100-5, Operations, describes doctrine as the Army's fundamental approach to warfighting, influencing events in operations other than war, and deterring actions detrimental to national interests. FM 100-5 states that doctrine must be "definitive enough to guide specific operations, yet remain adaptable enough to address diverse and varied situations worldwide."⁴ Doctrine then must be flexible, yet cover the basic principles by which the Army fights. It is authoritative, but judgment is required in its application. Doctrine focuses unity of action and provides a common language such as that provided by the principles of war.⁵

Tactics, techniques, and procedures on the other hand, while components of doctrine, are not synonymous with doctrine. Nevertheless, when attack helicopter employment is discussed, many people often include "tactics, techniques, and procedures" as if they were doctrine. Although the terms tactics, techniques, and procedures are not defined in FM 101-5-1, Operational Terms and Symbols (nor anywhere else in aviation doctrine), these terms are defined in various publications including Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, TRADOC Pam 34-1, Doctrinal Terms, FM 17-95, Cavalry Operations, and FM 7-20 The Infantry Battalion. It is generally accepted that doctrine is supported by tactics, techniques, and procedures, each being more precise than the one it precedes. Joint Pub 1-02 defines *tactics* as the employment of units in combat. It is the ordered arrangement and maneuver of units in relation to each other, to the enemy, or both, to utilize their full potential.⁶ *Techniques* on the other hand as defined in both FM 17-95 and FM 7-20 are the detailed methods for accomplishing a task.⁷ They are not the only way to perform a task or the way a task must be done. They can be changed as needed. A *procedure*, however, is a standard and detailed mode or course of action that describes how to perform a certain task.⁸

Accepting the terms doctrine, tactics, techniques, and procedures in the context defined above, one should expect then that the aviation keystone manual, FM 1-100, Doctrinal Principles for Army Aviation in Combat Operations, will provide basic principles (doctrine) for employment, while FM 1-112, Tactics, Techniques, and Procedures For The Attack Helicopter Battalion will provide the methods (tactics), or (techniques), and detailed steps (procedures) for the most likely scenarios in which attack helicopters can expect to be employed. Within this context, this study will determine if U.S. Army attack helicopter doctrine, tactics, techniques and procedures adequately meets the needs of today's global environment.

Significance of this Study

Given recent world events, changing and unpredictable threats, a National Military Strategy which has evolved from "forward deployed" to "force projection," and the U.S. Army's expanding role in "Operations Other Than War," it is not only appropriate, but necessary that this study assess the doctrine that drives the way U.S. Army attack helicopter units train and fight.

In addition to major changes in the strategic environment and in U.S. Army keystone doctrine, Army aviation must not only wrestle with the army-wide reduced force structure and fiscal constraints, but must also contend with the Aviation Restructure Initiative (ARI). This initiative, to take place beginning January 1994, eliminates all UH-60s and OH-58s from the attack helicopter battalion Tables of Organization and Equipment (TO&E). Although the effects of this new force structure remain to be seen, this study hopes to shed some doctrinal insight as to the advantages and disadvantages which may result based on an analysis of mission requirements.

Regardless of the implications ARI presents, Army Aviation's mission to be ready to fight anywhere in the world on short notice remains. It is therefore imperative

that U.S. Army attack helicopter doctrine is sound and relevant in order to produce aircrews and units who are properly trained to perform their missions across a broad spectrum of operations wherever required.

At its conclusion, this study will have assessed the overall adequacy of U.S. Army attack helicopter doctrine to support mission requirements across the operational continuum. The results of this study may provide valuable insight for the Aviation Branch as it begins to revise its warfighting doctrine to support contingency operations in a New World Order.

Scope

This thesis will examine attack helicopter doctrine, as it applies to the attack helicopter battalion. In doing so, this study will weigh the relevance and assess the applicability of doctrine across the operational continuum. The objective of this study is to determine if existing U.S. Army attack helicopter doctrine, (as well as the tactics, techniques and procedures to execute that doctrine) is adequate given the range of missions attack helicopter units can expect to perform.

Thesis Question

Does U.S. Army attack helicopter doctrine adequately support the scope of attack helicopter operations in a multi-polar world?

Secondary Questions

1. Historically how have attack helicopters been employed?
2. How are attack helicopters doctrinally employed?
3. Do tactics, techniques and procedures exist to implement doctrinal employment?

4. How is doctrine developed and implemented?
5. Given the new world order and subsequently revised National Military Strategy, what roles will attack helicopters perform in future operations?

Assumptions

This study assumes the following:

1. That there are no significant changes to the "new world order" (i.e. no return to cold war "bipolarism") throughout the course of this study.
2. That the basic underpinnings of United States National Military Strategy remains constant throughout the course of this study.
3. That U.S. Army attack helicopter doctrine will not change during the course of this study.
4. That the stated force structure objective of the attack helicopter battalion Aviation Restructure Initiative does not change during the course of this study.

Key Terms

Battlefield Framework. An area of geographical and operational responsibility established by the commander; it provides a way to visualize how he will employ his forces; it helps him relate his forces to one another and to the enemy in time, space, and purpose.⁹

Concept Based Requirements System (CBRS). CBRS is the system the U.S. Army uses to identify and prioritize Army warfighting requirements for doctrine, training, leader development, organizations and materiel.¹⁰

Conflict. The period characterized by confrontation and the need to engage in hostilities other than to secure strategic objectives.¹¹

Doctrine. Fundamental principles by which military forces guide their actions in support of national objectives. Doctrine is authoritative but requires judgement in application.¹²

Host Nation Support. Civil and/or military assistance rendered by a nation to foreign forces within its territory during peacetime, times of crisis, emergencies, or war; assistance provided during war is based upon agreements mutually concluded between nations.¹³

Humanitarian Assistance. Assistance provided by DOD forces, as directed by appropriate authority, in the aftermath of natural or man-made disasters to help reduce conditions that present a serious threat to life and property; assistance provided by U.S. forces is limited in scope and duration and is designed to supplement efforts of civilian authorities who have primary responsibility for providing such assistance.¹⁴

Low Intensity Conflict (LIC). A politico-military confrontation between contending states or groups. It is below general war and above routine peaceful competition. It often involves protracted struggles of competing principles and ideologies. LIC ranges from subversion to the use of armed force. It is waged by a combination of means, employing political, economical, informational, and military instruments. LICs are often localized, usually in the Third World, but they contain regional and global security implications.¹⁵

Military Operations in Urbanized Terrain (MOUT). All military actions planned and conducted on a topographical complex and its adjacent natural terrain where man-made construction is the dominant feature. It includes combat-in-cities, which is that portion of MOUT involving house-to-house and street-by-street fighting in towns and cities.¹⁶

Nation Assistance. Diplomatic, economic, informational, and military cooperation between the U.S. and the government of another nation, with the objective of promoting internal development and the growth of sustainable institutions within that nation. This corrects conditions that cause human suffering and improves the quality of life of the nation's people.¹⁷

Noncombatant Evacuation Operations. Operations that relocate threatened civilian noncombatants from locations in a foreign country or host nation. These operations normally involve U.S. citizens whose lives are in danger. They may also include selected host nation natives and third country nationals.¹⁸

Operations Other Than War. Military activities during peacetime and conflict that do not necessarily involve armed clashes between two organized forces.¹⁹

Peace Building. Postconflict diplomatic and military action to identify and support structures that tend to strengthen and solidify peace in order to avoid a relapse into combat.²⁰

Peace Enforcement. Military intervention to forcefully restore peace between belligerents who may be engaged in combat.²¹

Peacekeeping. Operations using military forces and/or civilian personnel, at the request of the parties to a dispute, to help supervise a cease-fire agreement and/or separate the parties.²²

Peacemaking. The diplomatic process or military actions to gain an end to disputes.²³

Postconflict Activities. Those operations other than war that are conducted in the period following conflict and the cessation of active combat; activities focused on restoring order and minimizing confusion following the operation, reestablishing the host nation infrastructure, preparing forces for redeployment, and continuing presence to allow other elements of national power to achieve overall strategic aims.²⁴

Rules of Engagement. Directives issued by competent military authority that delineate the circumstances and limitations under which U.S. forces will initiate and/or continue combat engagement with other encountered forces.²⁵

War. A state of open and declared armed hostile conflict between political units such as states or nations; may be limited or general in nature.²⁶

Limitations

At this point there are three potential problem areas; none so significant as to invalidate the need for or worthiness of this study. The first and most significant is the rapid impact that relatively recent major world events have had on U.S. Army doctrine and the inherent lag in the production and fielding of doctrinal publications. This has been considered in this study and where appropriate the current philosophy of the United States Army Aviation Center is reflected. Secondly, current doctrine may be affected by the impending Aviation Restructure Initiative. Additionally, after-action reports and lessons learned, which will contribute significantly to this study, are based on the current or previous TOEs. To overcome this problem, where it is determined that organization impacts on doctrine, this study will address the issue in the context of the ARI organization to increase the utility of the findings. The third area that may pose a problem is the use of Combat Training Center (CTC) and Battle Command Training Program (BCTP) after action reviews. Due to the sensitivity toward the release of those documents use of this information will be limited to the discussion of trends rather than the actions of specific units.

Delimitations

This study assesses doctrine, tactics, techniques and procedures as they apply to the employment of U.S. Army attack helicopter units, specifically the attack helicopter battalion. It does not address individual aviator or intracockpit procedures.

This study does not propose new attack helicopter doctrine, tactics, techniques or procedures, rather this study is an assessment of current attack helicopter doctrine as it relates to current and emerging mission requirements. Its primary focus is to determine doctrinal voids so that those voids can be addressed as Army aviation doctrinal manuals are brought in line with new military strategy and "Army Operations" doctrine.

In order to facilitate wide access to the information contained in this study, it will not contain classified material. Additionally, this study addresses doctrine as it applies to conventional attack helicopter units. It does not assess special operations aviation forces.

Endnotes

¹Richard L. Throckmorton, "Army Attack Helicopters: Can They Survive on the Airland Battlefield?", (MMAS Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS 1992):20.

²U.S. Army. US Army Forces, Somalia, After Action Report (Executive Summary) (Draft), 10th Mountain Division (L), (July 1993):42.

³U.S. Army. FM 22-103, Leadership and Command at Senior Levels (June 1987):11.

⁴U.S. Army. FM 100-5, Operations (June 1993):1-1.

⁵U.S. Army. FM 7-20, The Infantry Battalion (April 1992):2-6.

⁶United States Department of Defense, Joint Pub 1-02, Department of Defense Dictionary of Military and Associated Terms (1 December 1989):363.

⁷U.S. Army. FM 17-95, Cavalry Operations (September 1991):B-4.
U.S. Army. FM 7-20, The Infantry Battalion (April 1992):2-6.

⁸U.S. Army. FM 17-95, Cavalry Operations (September 1991):B-4.
U.S. Army. FM 7-20, The Infantry Battalion (April 1992):2-6.

⁹FM 100-5 (1993):Glossary-1.

¹⁰U.S. Army. TRADOC Regulation 11-15, Concept Based Requirements System (August 1989):3-11.

¹¹FM 100-5, (1993):Glossary-2.

¹²Ibid., Glossary-3.

¹³Ibid., Glossary-4.

¹⁴Ibid.

¹⁵U.S. Army. FM 7-98, Operations in a Low-Intensity Conflict (October 1992):1-1.

¹⁶U.S. Army FM 101-5-1, Operational Terms and Symbols (October 1985):1-46.

¹⁷FM 100-5, (1993):Glossary-6.

¹⁸Ibid.

¹⁹Ibid.

²⁰Ibid., Glossary-7.

²¹Ibid.

²²Ibid.

²³Ibid.

²⁴Ibid., Glossary-8.

²⁵Ibid., Glossary-9.

CHAPTER 2

LITERATURE REVIEW AND RESEARCH METHODOLOGY

Literature Review

There are four major categories of information this study draws upon: world events, doctrinal literature, historical accounts, and professional dialogue. World events, which ultimately shape our approach to warfighting, are well publicized and documented by the media and are reflected in U.S. national security and military strategies. Doctrinal literature, which guides and prescribes how U.S. forces intend to fight is readily available in the form of field manuals, concept papers, and in the 1993 Army Aviation Warfighting Treatise. Historical data in the form of after-action reviews, documentaries, lessons learned, and documented eyewitness accounts are also readily available. Of all sources of information, professional dialogue is the most abundant and is readily available in the form of professional journals, monographs, MMAS theses, and personal interviews. Taken as a whole, these sources provide the necessary tools to accomplish this study.

An initial look at present Army aviation doctrine indicates the predominant focus is on a "Soviet-style" armored threat. This is the case even after Operations URGENT FURY, JUST CAUSE and RESTORE HOPE. In fact, in February of 1992 one former attack helicopter battalion commander wrote, "We have not considered the attack helicopter as anything but a 'tank killer,' nor have we come to grips with attack helicopter employment in low intensity conflict"1

Even a look into Army Aviation's 1993 Warfighting Treatise reveals extensive discussion about large armored concentrations, the "FLOT," the covering force, follow-on

enemy formations and the counterattack. A subsequent look at FM 1-112, Tactics, Techniques and Procedures for the Attack Helicopter Battalion (dated February 1991), also reveals almost total emphasis on anti-armor and "deep" operations, dedicating 118 pages to those missions and only one paragraph to attack helicopter operations in LIC and MOUT.² Appropriately, research into Operation JUST CAUSE also reveals doctrinal voids in procedures for the employment of attack helicopter weapons in close proximity of light infantry and non-combatants as well as a lack of doctrine for use of aviation in MOUT.³

Ironically, recently the United States Army had attack helicopters in Somalia supporting an operation which could be defined as a classical low-intensity conflict. The apparent trend in this initial review of literature regarding low-intensity conflict indicates an acknowledgment of a doctrinal deficiency in this area. There is extensive evidence within U.S. Army Aviation doctrine, historical accounts, and professional dialogue which indicates other areas which may require additional attention as well. In many instances it appears as though attack helicopter doctrinal missions lack associated TTPs to indicate how those missions might be performed. This, in itself contradicts the doctrinal model in which the volume of doctrinal guidance should reflect a minimum amount of detail which is then expanded upon in the form of tactics, techniques and procedures. An additional initial observation is that it appears that several missions historically identified as Special Operations Aviation (SOA) missions are being routinely accomplished by conventional attack helicopter units.

Methodology / Research Design

This research will be conducted in six chapters, generally conforming to the United States Army Command and General Staff College format as prescribed in ST 20-10, Master of Military Art and Science (MMAS) Research and Thesis.

Chapter One - Introduction

This chapter illustrates the problem. Using historical examples to stimulate thought this chapter poses the question regarding the need for attack helicopter doctrine, tactics, techniques and procedures. The thesis then defines and discusses the role of doctrine, and its importance in the Army's ability to accomplish its assigned missions. This chapter also contains administrative data to include the significance of this study, its scope, assumptions, limitations/delimitations and key terms.

Chapter Two - Literature Review and Research Methodology

This chapter describes the major informational categories upon which this study will draw. It then briefly describes the results of an initial look into each of these areas, which served as the basis for determining the merit of this study and the ultimate decision to continue the research. Chapter two then provides a chapter-by-chapter description of events which will ultimately answer the research question.

Chapter Three - The New World Order

This chapter sets the stage for the remainder of the study. It is because of the events of and following the collapse of the former Soviet Union that makes this study worthwhile and necessary. This chapter describes the "New World Order" and discusses the implications it continues to have on U.S. Army doctrine through the tactical level as it relates to U.S. National Security Strategy.

Chapter Four - The Attack Helicopter and the New World Order

This chapter is intended to provide the reader with a base of knowledge regarding the evolution of attack helicopters, their capabilities, limitations, employment and force structure. This chapter will culminate with a list of missions that an attack helicopter unit could reasonably expect to perform as the Army is called upon to defend

U.S. interests or to secure national objectives in today's strategic environment. These missions, known as "documented requirements," will be derived from several sources including previous employment of attack helicopters in combat, ATKHB Mission Essential Task Lists (METL), and those missions U.S. Army attack helicopter battalions have been called upon to perform in support of local, state, and other U.S. government agencies. These missions will provide the basis for developing criteria in which to assess the adequacy of current attack helicopter doctrine and will further provide the means to analyze the adequacy of existing tactics, techniques and procedures.

Chapter Five - The Engine of Change

This chapter builds on chapter four by illustrating how the Army applies the Concept Based Requirements System to accommodate change. This chapter will then discuss the Doctrine and Training elements of the Concept Based Requirements System in the context of the New World Order. In doing so, this chapter will describe key qualities which would indicate an appropriate focus in these two areas of the model. These key qualities will then be used as criteria in chapter seven (Analysis) to evaluate current doctrine and ultimately answer the thesis question: "Does U.S. Army Attack Helicopter Doctrine Adequately Support the Scope of Attack Helicopter Operations in a Multi-Polar World?"

Chapter Six - Where Do We Stand?

Having documented the missions which attack helicopter battalions will most likely be called upon to perform, and having established the qualities which would indicate an appropriate doctrinal focus, this chapter will describe the employment of the ATKHB according to current doctrinal and training publications. The information presented in this

chapter will serve as the baseline in determining the adequacy of existing doctrine in chapter seven, Analysis.

Chapter Seven- Analysis

At this point all data required for analysis will have been compiled. In this chapter the study will first assess current doctrine against the doctrinal criteria established in Chapter Five. It will then assess those mission requirements documented in Chapter Four against existing missions, tactics, techniques and procedures, discussed in Chapter Six. This will result in a determination as to whether or not existing missions, tactics, techniques and procedures adequately support those missions deemed in Chapter Four to be most probable in today's multi-polar strategic environment.

Chapter Eight - Conclusions and Recommendations

When concluded, this study will have assessed the adequacy of Army Aviation attack helicopter doctrine to support its new and expanding roles across the spectrum of Army Operations. If doctrinal or other voids, discrepancies or inconsistencies are discovered, they will be stated here along with recommended solutions and/or areas in which further study is warranted.

Endnotes

¹Lawrence E. Casper, "The Strong Case For Not Cutting the 2.75 Rocket" Army Magazine (February 1992):46-48.

²U.S. Army. FM 1-112, Attack Helicopter Battalion (February 1991):1-3,3-21.

³U.S. Army Aviation Center. Operation Just Cause Aviation Lessons Learned (Briefing Slides) (April 1990).

CHAPTER 3

THE NEW WORLD ORDER

The crumbling of the Berlin Wall in 1989 and the lowering of the Soviet flag over the Kremlin two years later symbolized the destruction of communism and the death throes of a power and system--despite its inherent defects--that had helped to maintain world stability. Now, newly visible participants in the world order are acquiring state-of-the-art conventional military technology, weapons of mass destruction, and ballistic missile technology. Armed and dangerous, these participants in global affairs are not deterred by the strategic concepts of containment and mutually assured destruction which stabilized security relationships in the bipolar world. Some of these participants neither understand nor accept the obligations of responsible behavior and the constraints of international law. They may not hesitate to threaten the vital interests of other nations--interests that must be protected in the name of international law.¹

U.S. Army DCSOPS, *State of America's Army*, 1993

The fall of communistic ideology has seemingly eliminated any likelihood of global war. At the same time, however, the instability resulting from such rapid and dramatic change drastically increased the likelihood of lesser regional conflict throughout Europe and the former socialist nations that now make up the Commonwealth of Independent States (CIS). Indeed, the disappearance of the threat of direct large-scale conventional military attack on Europe, and the emergence of democratic governments in many of the new independent states of the former Soviet Union have transformed the U.S. security environment for the better.² However, the regional scale turmoil this "New World Order" has created is causing the United States to relook its warfighting philosophy--from the strategic through the tactical level. As a result of these events, the United States has modified its National Security Strategy to demonstrate its resolve as a world leader in promoting peace throughout the world.

A brief study of the current world situation reveals some of the potential problem areas in which the United States, as a leader in regional stability, may require military involvement. In Europe the United States maintains an interest in promoting stability and security throughout the region.³ In Korea, the United States maintains a military presence in support of South-North relations and promotes positive change in China, Laos and Cambodia.⁴ In the Commonwealth of Independent States, the United States has a vital interest in the control of nuclear weapons and arms proliferation.⁵ In the Middle East and South Asia, the United States maintains forces in the region to defend the sovereignty, independence and territorial integrity of its partners in the region.⁶ Finally, in Latin America the United States pledges to advocate multi-national responses to aggression and participation in peace-keeping operations, arms control and undertaking of major counter-drug, counter-terrorism and nation assistance missions in the region.⁷

In light of the instability and potential for commitment of U.S. forces that now exists in virtually every corner of the globe, the U.S. Army faces the unprecedented challenge of preparing for multiple contingency requirements, some of which may be impossible to predict. In response to this new strategic environment characterized by global uncertainty and regional instability, the United States has shifted its strategic focus from a cold war National Military Strategy of forward deployment to a strategy of force projection and crisis response. This new strategy requires U.S. armed forces to be prepared to rapidly deploy on any contingency and, upon arrival, conduct operations without the benefit of a period of troop acclimation, unit train-up, mission rehearsals, or logistics stockpiling as was enjoyed during the cold war era as well as during the months preceding operations JUST CAUSE and DESERT STORM.

Perhaps to an even greater extent, however, than the uncertainty of *where* the next contingency will be is not knowing *what* the threat will be once forces are deployed to a particular region. In the bipolar world of the cold war era, the U.S. military knew the

enemy it would face, to include its weaponry, doctrine and the tactics it would employ. With this knowledge, the United States Army was able to man, equip and train to defeat an attack into Western Europe by massed mechanized and armored forces of the Soviet Union. This is nowhere more apparent than in our attack helicopter units--units equipped with state of the art anti-armor and night vision technology unified with a doctrine that drove a quick and decisive victory over the fourth largest Army in the world.

In reality, the likelihood of a war approaching that scale today is low. Instead, the U.S. is faced with the more likely scenario of fighting its high-tech forces against a much smaller, less sophisticated threat. Figure 1 below graphically represents the probability of various levels of conflict in which U.S. forces may be committed. Although it may seem unlikely that attack helicopters would be committed against terrorists, it is likely that attack helicopters would participate in operations designed to prevent or deter continued acts of terrorism known to be sponsored by a particular government or military regime.

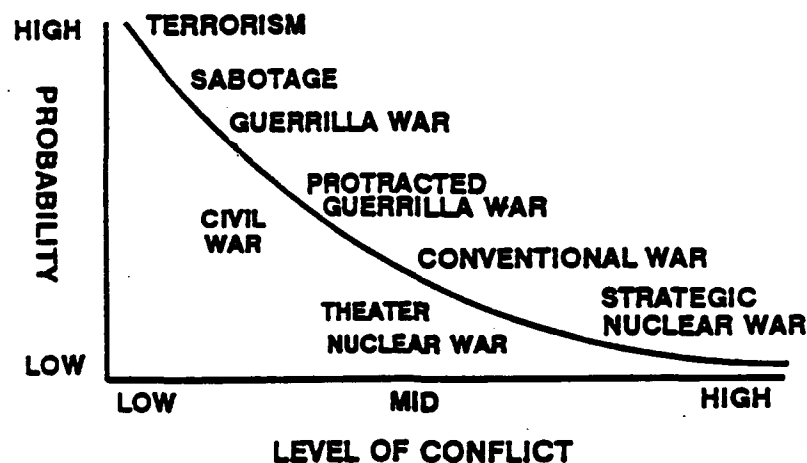


Fig. 1. Spectrum of Conflict
(Source: FM 1-100 Army Aviation in Combat Operations, p:1-13)

In addition to making the adjustment from a forward based to a power projection force, the U.S. Army has expanded its warfighting focus to encompass "Operations Other Than War" (OOTW). OOTW includes an array of missions classified as "short of war" such as disaster relief, humanitarian assistance, nation building, drug interdiction and peacekeeping, up to and including strikes and raids. When placed on a vertical scale, these missions fall between Peace and War within the Operational Continuum (Figure 2). To further complicate an environment of uncertainty, there is often no clear delineation regarding the requirement for the use of force during the conduct of OOTW. Similarly, there is no finite criteria to distinguish when a mission categorized as OOTW has escalated into actual conflict. This ambiguity adds a new dimension to the manner in which units have typically gauged their "combat readiness".

STATES OF THE ENVIRONMENT	GOAL	MILITARY OPERATIONS	EXAMPLES
WAR	Fight and Win	WAR	<ul style="list-style-type: none"> • Large-scale combat operations . . . • Attack • Defend
CONFLICT	Deter War and Resolve Conflict	OTHER THAN WAR	<ul style="list-style-type: none"> • Strikes and raids • Peace enforcement • Support to insurgency • Antiterrorism • Peacekeeping • NEO
PEACETIME	Promote Peace	OTHER THAN WAR	<ul style="list-style-type: none"> • Counterdrug • Disaster relief • Civil support • Peace building • Nation assistance
<p>The states of peacetime, conflict, and war could all exist at once in the theater commander's strategic environment. He can respond to requirements with a wide range of military operations. Noncombat operations might occur during war, just as some operations other than war might require combat.</p>			

Fig. 2. Operational Continuum
(Source: FM 100-5, Operations, p: 2-1)

To reflect the new emphasis being placed on its expanding roles across the operational continuum, the Army has changed its doctrinal trademark from "AirLand Battle" to "Army Operations." Additionally, in the 1993 revision of FM 100-5, Operations, the Army has added a fifth tenet--Versatility--the ability of units to meet diverse mission requirements--to the existing tenets of Agility, Initiative, Depth, and Synchronization which characterized AirLand Battle Doctrine. At a glance, this new tenet may seem relatively insignificant, perhaps just another word to add to a seemingly endless list of military jargon. That, however, would be a far cry from the truth. In reality, versatility summarizes, in one word, the impact of a new world order on an Army in the midst of the biggest drawdown since before the Korean War.⁸ In essence, it is the Army's way of saying "it's time to do more with less." The requirement to shift focus from essentially one well known threat to a multitude of unknowns while at the same time facing significant reductions in resources demands the Army adopt versatility as a tenet. According to FM 100-5, "Versatility requires commanders be able to shift focus, tailor forces, and move from one role or mission to another rapidly and efficiently. Versatility implies a capacity to be multifunctional, to operate across the full range of military operations"⁹

Army aviation, by virtue of its inherent mobility is certain to be a key player in future operations spanning the entire continuum. Aviation's unique capability to expand the force commander's ability to influence events in both space and time make it a most valuable commodity as a force multiplier, especially in this era where uncertainty and constrained resources are the rule.

Likewise the ATKHB, with its advanced visionics, near all-weather capability, and highly lethal weapon systems is potentially the most versatile force in the U.S. Army today. As such, the ATKHB will be called upon more and more not only as a tank-killer but wherever its unique capabilities will enhance operations.

The U.S. commitment to project military forces worldwide in support of operations ranging from disaster relief to full scale war represents significant training and doctrinal challenges for Army aviation attack helicopter units. At no other time has an analysis of Mission, Enemy, Terrain, Troops and Time Available (METT-T) taken on greater importance--not only in terms of diverse mission requirements and threat capabilities, but also in terms of the diversified geographical conditions in which a force projection army will operate. Attack helicopter units therefore must be prepared to execute any of its missions in urban, desert, mountainous, jungle or maritime environments. In many cases each of these environments demands unique tactics, techniques and procedures be employed for any given mission. As an example, the techniques used by attack helicopters to affect a downed aviator recovery in the streets of Mogadishu, would vary significantly from the same mission conducted in the mountains of Bosnia, the desert of Southwest Asia, jungles of Southeast Asia or in the Caribbean Ocean off the coast of Haiti. Units therefore that were previously able to focus their training on a particular mission or geographical region must now be prepared to execute a number of missions in any one of several possible geographical environments. Indeed, we now face a new world of military contingencies far divorced from the comforting certainties of dealing with the European Communistic threat.

The challenge Army aviation faces then is how to employ a piece of machinery designed and perfected for a specific threat and specific geographical region against a whole new host of missions in any one of a number of environments ranging from maritime, to mountain, to jungle, to desert, and from humanitarian relief to full scale war. This is the heart of the issue. By answering this question, Army aviation can begin the monumental task of ensuring that doctrine, tactics, techniques and procedures exist to ensure attack helicopter units are adequately prepared for the missions they will face in today's multi-polar world. In the next chapter we will determine what those missions are.

To begin to answer this question one should first understand how the attack helicopter has evolved, how the current ATKHB is organized, and the tools it possesses to produce a given capability. The following chapter will briefly describe these elements. Then, by looking at previous employment, and current real-world requirements the study will determine the spectrum of missions which the ATKHB must be able to perform in fulfilling its mandate to support Army Operations Doctrine.

Endnotes

¹U.S. Army Office of the Deputy Chief of Staff For Operations and Plans, State of America's Army. (1993):1.

²Annual Report to the President and the Congress, United States Department of Defense (January 1993):1.

³United States of America National Security Strategy (January 1993):7.

⁴Ibid.

⁵Ibid.

⁶Ibid., 20.

⁷Ibid.

⁸Information on the drawdown of the U.S. Army provided by the Public Affairs Office, Association of the United States Army, Arlington, VA.

⁹U.S. Army. FM 100-5, Operations (June 1993):2-9.

CHAPTER 4

THE ATTACK HELICOPTER AND THE NEW WORLD ORDER

Background

By most accounts it was during the early years of the Vietnam conflict that the roots of U.S. Army armed helicopters were established. Employed as airmobile escort, in October 1962 UH-1A helicopters, armed with 2.75" folding fin aerial rocket pods mounted to the skids¹ validated the potential for a dedicated attack helicopter. During the early 1960s in an effort to exploit the benefits of mobile land forces, Defense Secretary Robert S. McNamara formed the Army Tactical Mobility Requirements Board, which came to be known as the "Howze Board" in honor of its chairman, General Hamilton H. Howze.² Recognizing the advantages airmobility brought to the battlefield, the board recommended the fielding of an entire airmobile division - a division in which aircraft-mounted rockets would substitute for heavy artillery.³ In 1965, after three years of testing, Secretary McNamara approved the board's recommendation and on 28 September 1965 the First Cavalry (Airmobile) Division had arrived in Vietnam.⁴ From this point on the concept of airmobility and aerial firepower dominated operations in Southeast Asia.

On 1 September 1967 the first AH-1G Cobra attack helicopter arrived in Vietnam.⁵ The Cobra was the Army's first dedicated attack helicopter, designed from the ground up solely for the attack role. Employing rockets, mini-guns and cannon, its primary mission was to provide aerial rocket artillery fires in support of ground troops in contact. From its introduction into theater the Cobra performed this mission with great success throughout the remainder of the campaign. Recognizing its mobility and

firepower and the effectiveness the attack helicopter could achieve against a Soviet armored threat with its wire-guided anti-tank missile potential, the U.S. continued to pursue development of the attack helicopter as an anti-armor weapons platform during the 1970's. The result of this effort was the AH-1 TOW Cobra which is still in use today. With the Soviet Union as its only perceived global threat, the U.S. continued to improve upon the attack helicopter as an anti-tank platform, resulting in the development and fielding of the AH-64 Apache. Until the dissolution of the Soviet Union in 1990, attack helicopter training and doctrine revolved almost strictly around the ability to defeat the Soviet armored threat. Despite the U.S. invasion of Grenada in 1983 and the invasion of Panama in 1989, (both of which attack helicopters were employed) the primary doctrinal focus remains to be the "Soviet-style" armored threat.

The Mission

Today, the primary mission of the attack helicopter battalion is "to destroy massed enemy mechanized forces and other forces with aerial firepower, mobility and shock effect."⁶ Other missions include suppression of enemy air defenses (SEAD), coordination and adjustment of indirect fires, reconnaissance and security, offensive and defensive air combat, destruction of enemy communications and logistical assets and joint air attack team operations.⁷

The Current Organization

As a result of their proven speed, mobility and lethality, attack helicopter battalions today are found in every aviation brigade from division through echelons above corps. Each attack helicopter battalion is organized with a headquarters and headquarters company (HHC), three attack helicopter companies and a maintenance company. Currently the HHC consists of three UH-60s and one OH-58A/C, while each of the three

attack helicopter companies contains six AH-64s (or 7 AH-1 if so equipped) and four OH-58A/C scout aircraft.

As mentioned earlier, this organization will change in the near future as a result of a major aviation force restructure which was approved by the Chief of Staff of the Army on 3 February 1993. This restructure, known as the Aviation Restructure Initiative (ARI) eliminates all UH-60s and OH-58s from the attack helicopter battalion Table of Organization and Equipment (TO&E). The primary reasons for the ARI are to reduce the Army's aging helicopter fleet while at the same time reducing costs by streamlining maintenance operations. The resultant organization will be "homogenous" attack helicopter battalions consisting of 24 AH-64s (or AH-1), with the exception of the airborne division attack battalions which will be equipped with 24 OH-58D Kiowa warriors. The 24 aircraft within the battalion will be organized with 8 aircraft per company. Within the company, five of the aircraft will be designated as "attack" aircraft and three will be designated as "scouts."

This restructure is an interim measure until fielding of the RAH-66 Comanche, that which will replace the nine AH-64 Scouts of the battalion. The RAH-66 is designed to replace the U.S. Army's aging fleet of OH-58 A/C, OH-6 and AH-1 helicopters, solving what the Chief of Army Aviation called "the single most critical deficiency of today's Army--the ability to see the battlefield."⁸ Figure 3 illustrates the progression from the current organization of the ATKHB through its phased reorganization in accordance with ARI. Under ARI the utility aircraft previously organic to the attack battalion will be placed under the operational control of the battalion as required. These aircraft will be provided by the General Support Aviation Battalion within the aviation brigade.

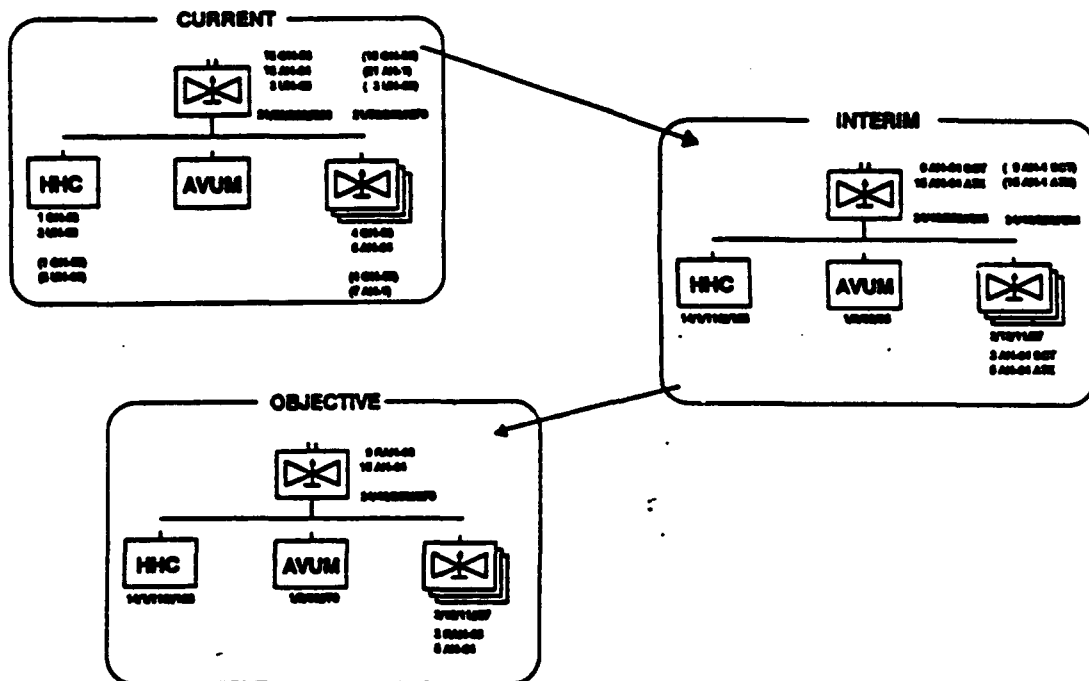


Fig. 3. ATKHB Reorganization Under ARI
(Source: United States Army Aviation Center)

The Tools

Currently the U.S. Army employs the AH-64A Apache, the AH-1 Cobra and the OH-58D Kiowa Warrior in the attack role. A brief description of each of these aircraft, as well as the RAH-66 as follows.

AH-64A Apache (Figure 4). The primary mission of the AH-64A is the destruction of armored vehicles; however, the Apache is capable of delivering aerial fires as an integral element of ground maneuver forces and can be responsive around the clock

and under adverse weather conditions. It can contribute highly mobile, effective, and accurate antiarmor firepower with the Hellfire laser-guided antiarmor missile, 30-millimeter cannon, and 2.75-inch rockets. The AH-64A is equipped with an integrated target acquisition and designation system (TADS) and a pilot's night vision system (PNVS). Its unique capability to videotape through its optic systems provides near real-time battlefield intelligence.⁹ The AH-64 is the Army's premier night capable, heavy attack helicopter.

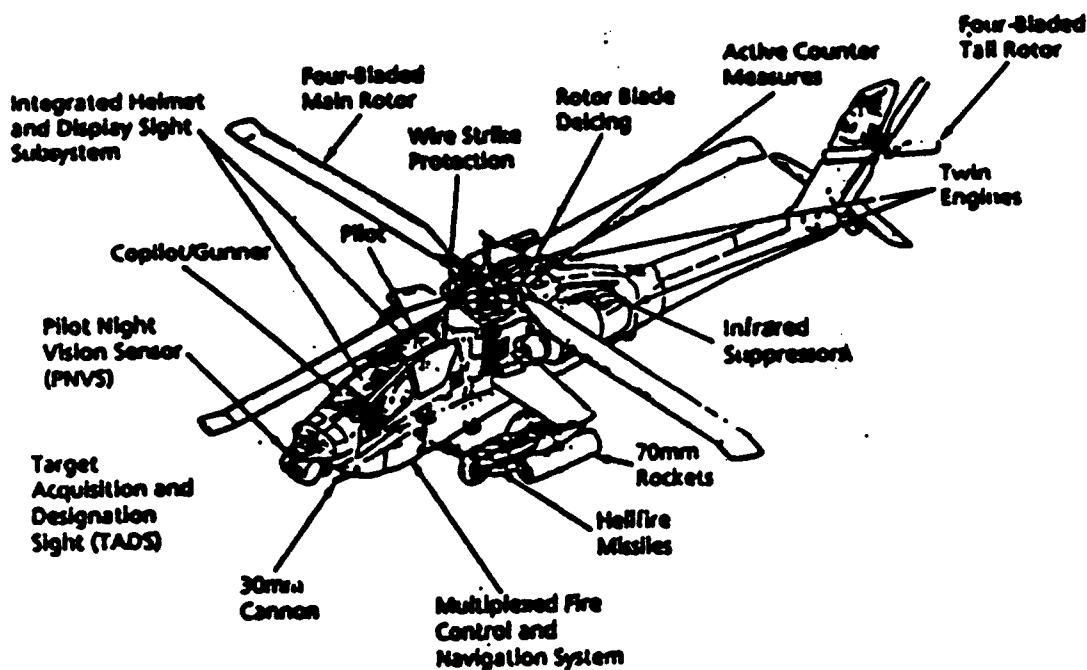


Fig. 4. AH-64 Apache
(Source: United States Army Aviation Center)

AH-1F Cobra (Figure 5). The AH-1F, or fully modernized Cobra, is the product improved version of the first TOW-firing Cobras of the post-Vietnam era. Its primary mission is to destroy enemy armor and mechanized targets using the TOW antitank missile. It employs 20 millimeter cannon fire and 2.75-inch rockets against lightly armored vehicles and troops. The AH-1's ability to detect and engage targets at night is limited to that of night vision goggle technology, thus limiting its capability to perform a true night anti-armor mission.

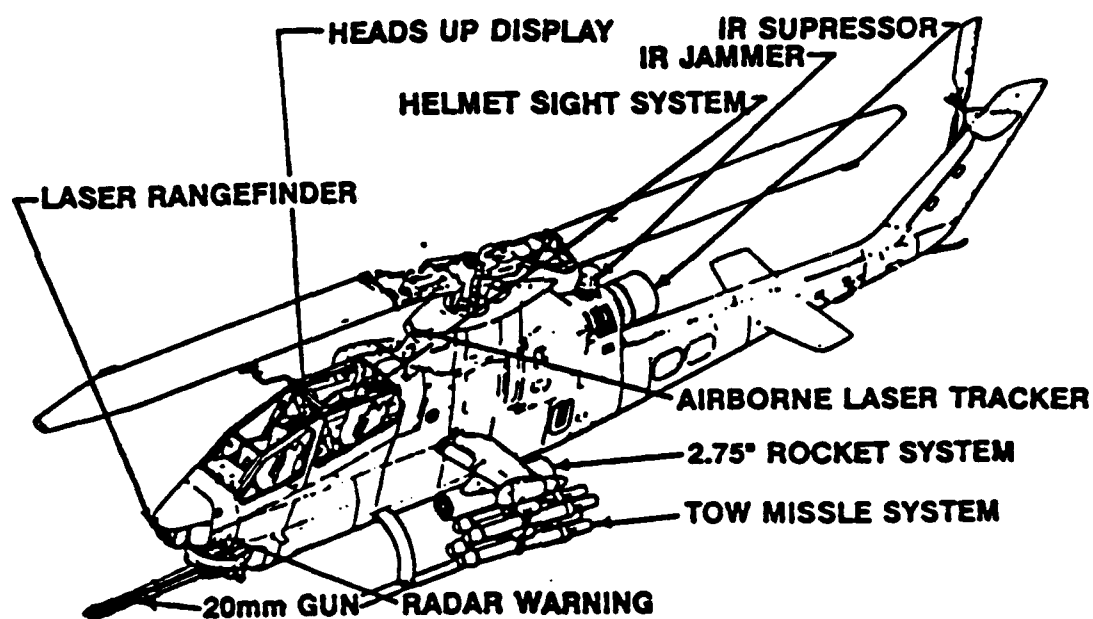


Fig. 5. AH-1F Cobra
(Source: United States Army Aviation Center)

OH-58D Kiowa Warrior (Figure 6). The OH-58D Kiowa Warrior is an outgrowth of the Army's longstanding fight to improve its Scout helicopter fleet. The OH-58D performs aerial reconnaissance, surveillance, intelligence gathering, and target acquisition for attack helicopters, TACAIR, and field artillery. It incorporates a mast-mounted sight (MMS) that allows the crew to remain out of the enemy's direct line of sight. The MMS laser range finder/designator can designate targets for laser-guided weapons or accurately determine distance and direction to intended targets. The OH-58D can perform its missions during the day, at night, and in adverse weather conditions. Its armament includes 2.75-inch rockets, .50 caliber machine gun, Hellfire and air-to-air Stinger missiles.¹⁰ In essence, this aircraft assumes the role of a present day light attack helicopter.

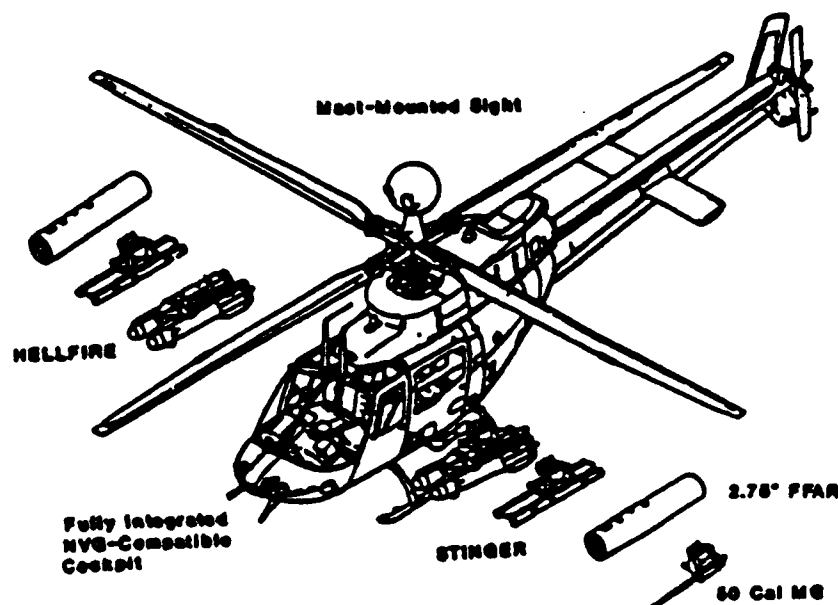


Fig. 6. OH-58D Kiowa Warrior
(Source: United States Army Aviation Center)

RAH-66 Comanche (Figure 7). The Comanche is the Army's future generation helicopter and the first helicopter designed from the ground up as a dedicated armed reconnaissance helicopter.¹¹ This aircraft will fill Army Aviation's need for a light scout/attack helicopter when fielded near the turn of the century. A twin turbine, two-seat helicopter, the Comanche is designed to operate in both the air cavalry and attack roles, performing missions currently being performed by the Vietnam-vintage AH-1, OH-58 A/C and OH-6 helicopters. The Comanche will provide day or night, all weather, all terrain capability with enhanced digital forward-looking infrared systems, a 170 knot cruising speed, a night vision pilotage system, helmet-mounted display, electro-optical target aquisition and designation system, and an improved data modem for exchange of digital data with other weapon systems. Commanche's armament systems will consist of a 20-mm gun plus internal and external launcher capable of employing as many as 14 Hellfire or Stinger missiles.

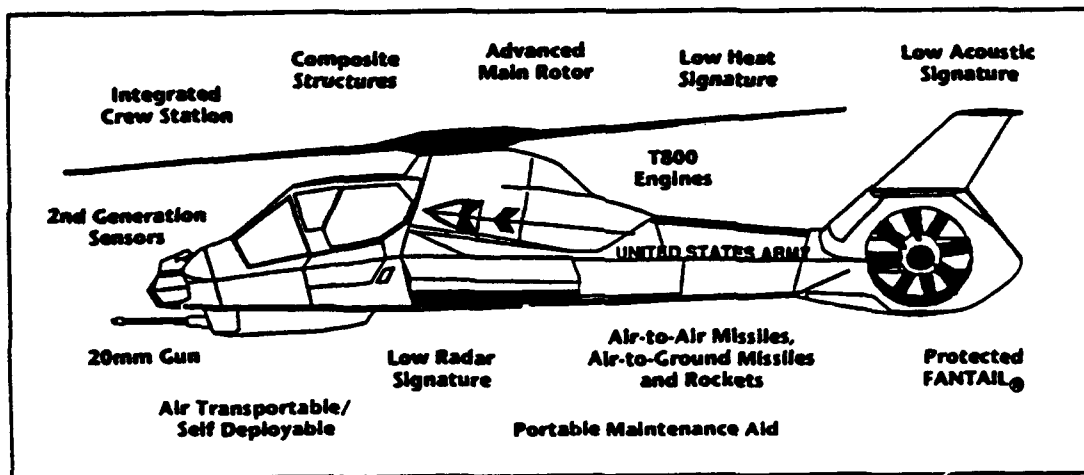


Fig. 7 RAH-66 Comanche
(Source: Boeing Sikorsky, The Comanche Courier, March 1993)

A Dichotomy ?

As indicated, the attack helicopter has evolved from its initial inception as an aerial platform designed to protect airmobile forces and ground troops into Army Aviation's main combat weapon system. As such the ATKHB has evolved into a highly lethal force capable of independent maneuver operations similar to traditional ground maneuver forces, with one major advantage--mobility. Not only is this apparent in its inherent design, but is also reflected in the doctrinal roles of the attack helicopter battalion.

This evolution, however, when analyzed in the context of the new and diversified threats the U.S. now faces, poses an interesting dichotomy. Simply stated: How does a force trained and equipped to kill tanks adapt to perform those non-traditional missions required to meet new and diversified threats? An immediate solution is to modify or, if required, develop the doctrine to reflect the basic principles of employment as well as the tactics, techniques, and procedures which will enable the ATKHB to execute its newly identified doctrinal missions. In order to do this, of course, we must know what those missions are. To answer this question we will look at previous and ongoing employment of U.S. Army attack helicopters, as well as those missions that ATKHB commanders in the field deem most important in preparing their units for their real-world contingency requirements.

Attack Helicopter Mission Requirements In the New World Order

In determining NWO attack helicopter mission requirements, one cannot dismiss the role the attack helicopter played in Vietnam. There are two reasons for this. First, the missions and tactics which evolved during the Vietnam conflict did so because they worked. Second, the likelihood of the U.S. becoming involved in a similar level of conflict is, considering the current strategic environment, relatively high. Because of this, this

study will assume that the ATKHB still requires the capability to perform those missions which were successful during operations in Southeast Asia. Those missions include the capability to provide aerial security and supporting fires for air assault, convoy, and maneuvering ground forces, as well as attack, reconnaissance and combat search and rescue.

Since Vietnam, U.S. Army attack helicopters have participated in operations URGENT FURY in October 1983 to rescue U.S. citizens and return democracy to the island of Grenada; in Operation PRIME CHANCE in 1987-1991 to protect shipping and enforce the U.N. embargo against Iraq in the Persian Gulf; in Operation JUST CAUSE in December 1989 to protect U.S. lives and property, neutralize the Panamanian Defense Forces and restore law and order in the Republic of Panama; in Operations DESERT SHIELD/DESERT STORM in August 1990-February 1991 to force Iraqi forces to withdraw from Kuwait and in Operation RESTORE HOPE during December 1992-March 1994 to provide security for humanitarian relief efforts in Somalia. In each of these operations, attack helicopters performed a variety of tasks which contributed to the overall objectives which defined success--yet only one of these operations involved a significant anti-tank role for attack helicopters.

In addition to the above joint and combined operations, ATKHBs have been involved in several other operations in support of local, state, and federal agencies. These include search and rescue, border patrol, and counter-narcotics surveillance.

The final area which will assist in defining NWO mission requirements is that of the current training priorities of ATKHBs in the field. This information is available in the form of ATKHB Mission Essential Task Lists. A Mission Essential Task List or "METL" is a list of collective tasks which the ATKHB commander deems that his unit must perform successfully in order to accomplish its wartime mission. Ideally, these tasks will appear in ARTEP 1-187-30-MTP, which provides the tasks, conditions and standards for

U.S. Army Attack Helicopter Company (ATKHC) critical wartime mission requirements. Where a task is not listed in the MTP, the unit must develop conditions and standards which it considers as realistic and adequate means to measure combat readiness. Regardless, however, of the source of the task, the overriding concern is that these tasks support the contingency requirements of each U.S. Army ATKHB. As such, it is perfectly normal for unit METLs to vary from command to command. For the purposes of this study, a sample of eight U.S. Army active duty ATKHB METLs will be used.

Mission Essential Task Lists

Figures 8 through 14 below are the mission statements and METLs of eight active component ATKHBs. For brevity, these lists include only maneuver tasks and do not include those tasks associated with administrative or sustainment functions.

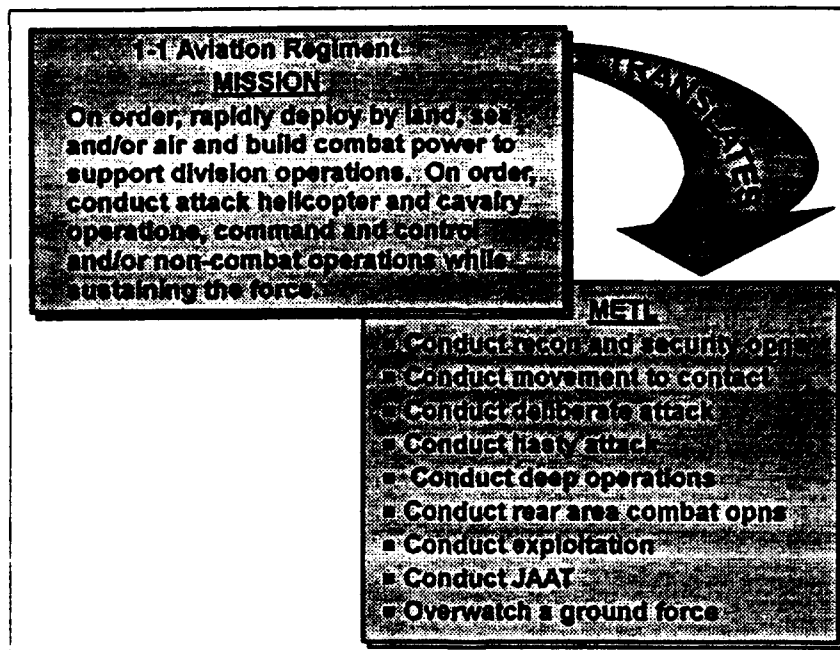


Fig. 8. Mission Statement and METL, 1-1st Aviation Regiment

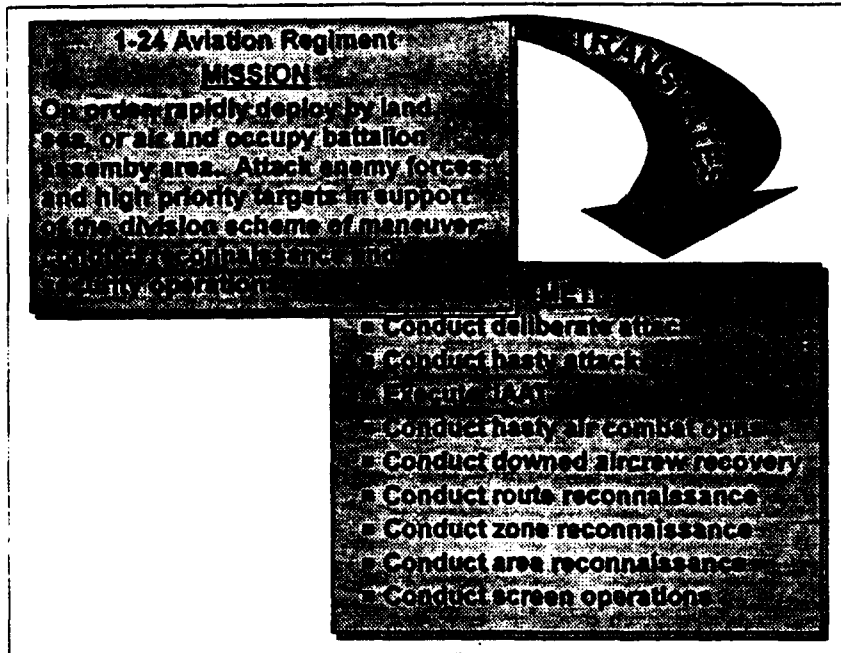


Fig.9. Mission Statement and METL, 1-24th Aviation Regiment

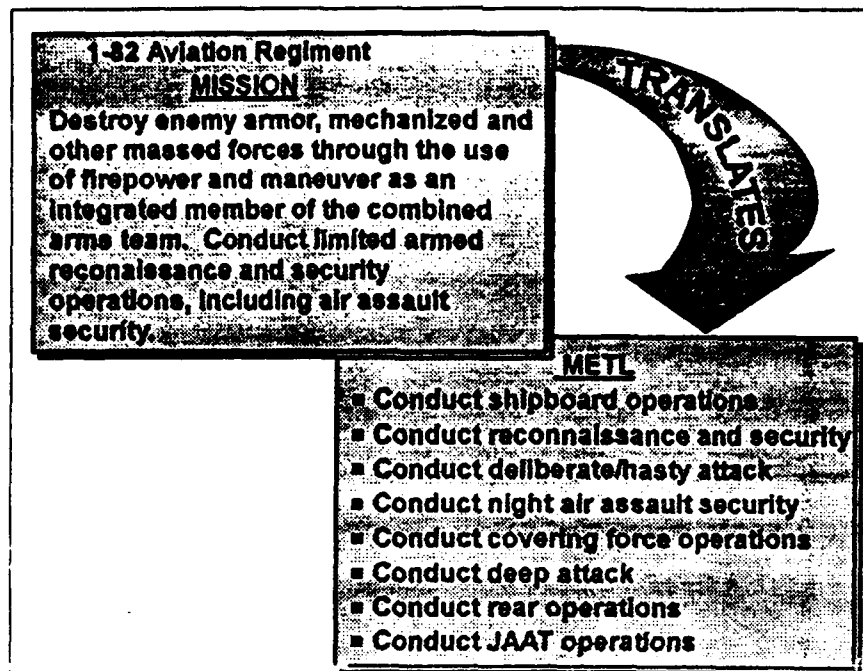


Fig.10. Mission Statement and METL, 1-82nd Aviation Regiment

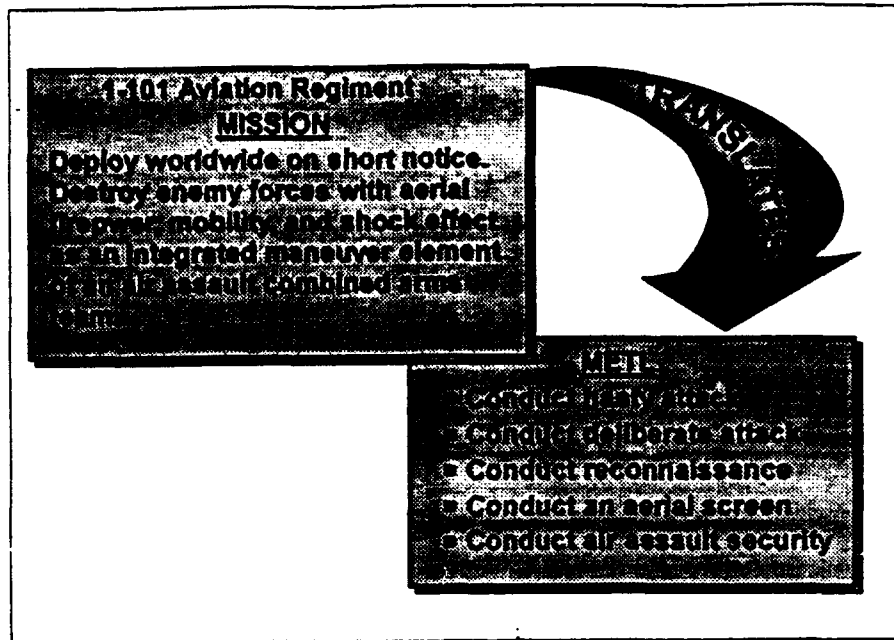


Fig. 11. Mission Statement and METL, 1-101st Aviation Regiment

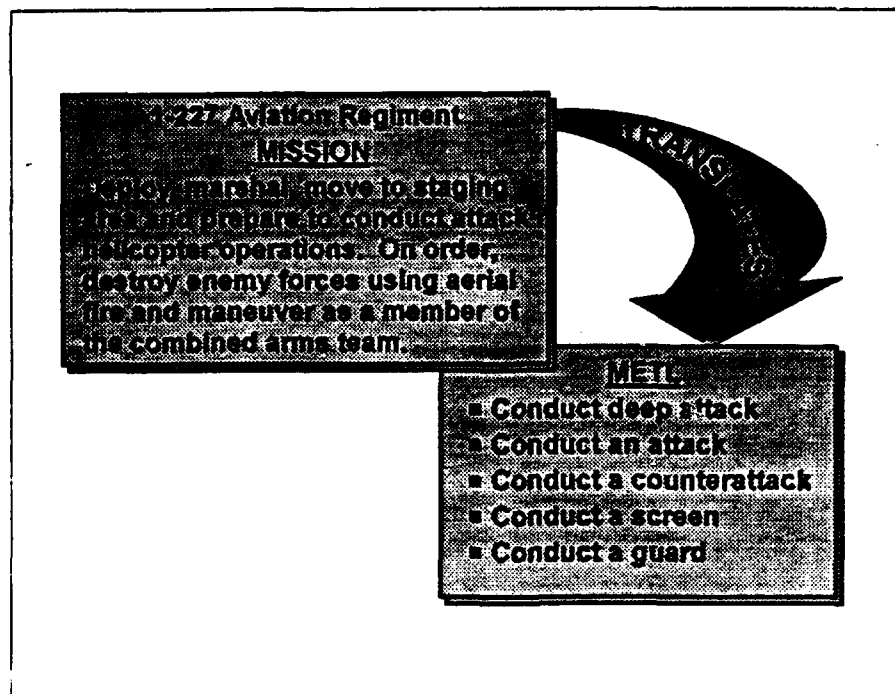


Fig. 12. Mission Statement and METL, 1-227th Aviation Regiment

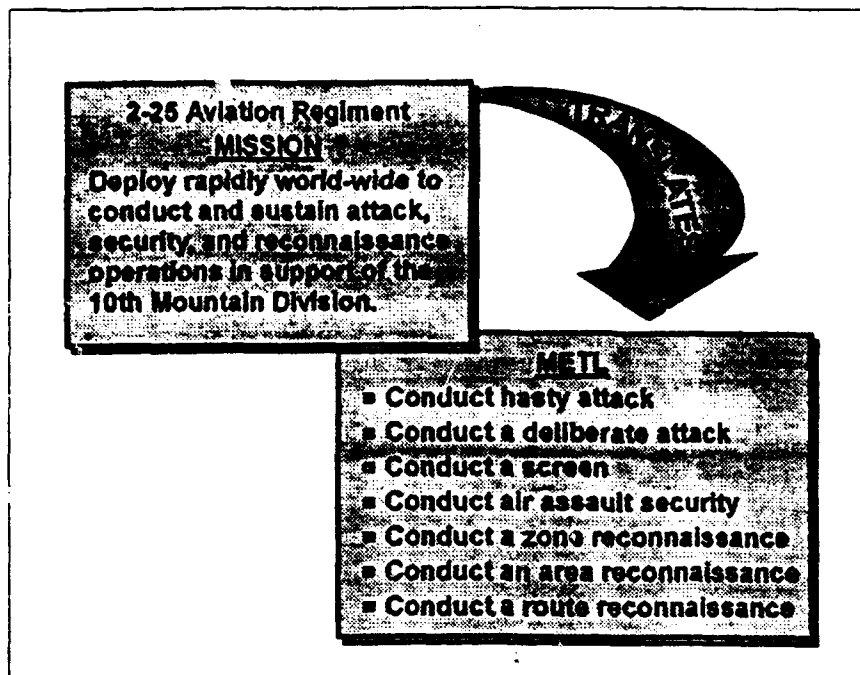


Fig. 13. Mission Statement and METL, 2-25th Aviation Regiment

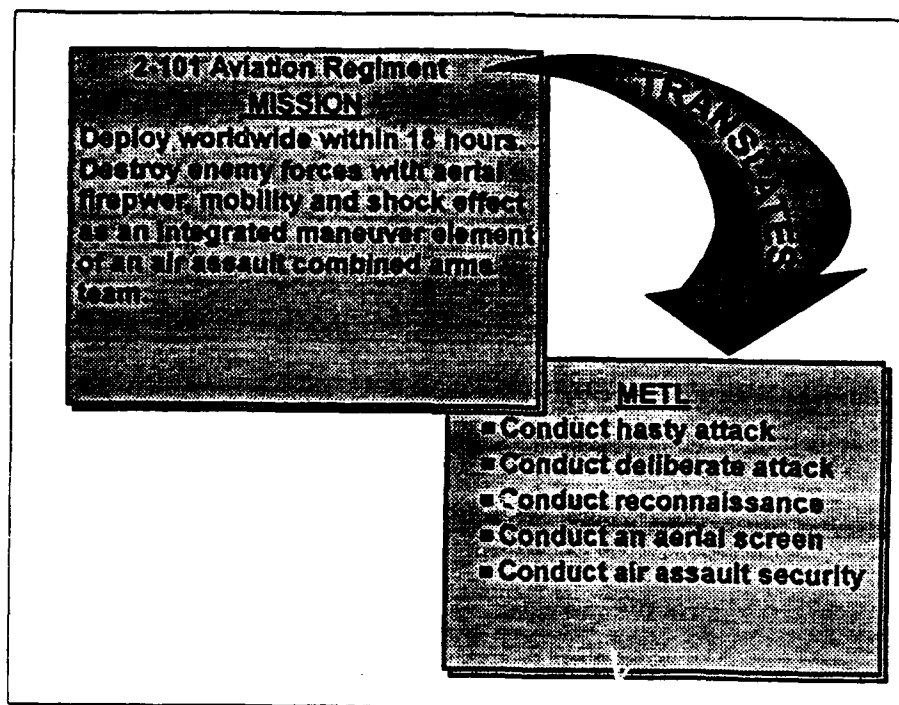


Fig. 14. Mission Statement and METL, 2-101st Aviation Regiment

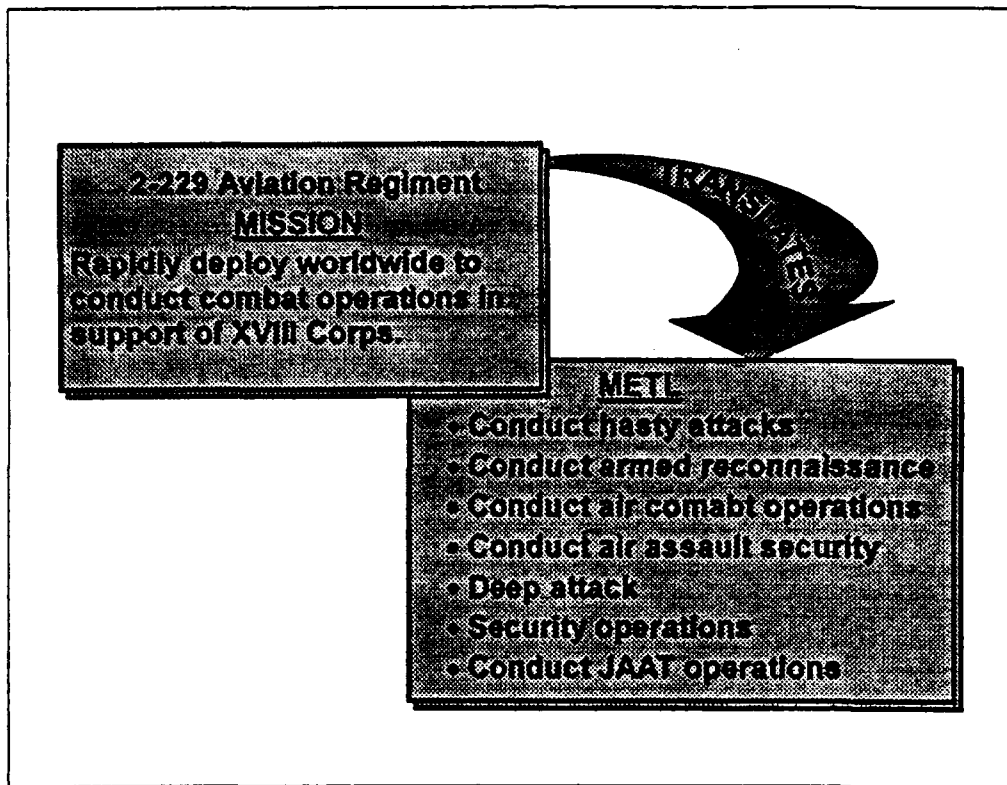


Fig.15. Mission Statement and METL, 2-229th Aviation Regiment

Figure 16 below is a consolidation of all tasks appearing on one or more Unit Mission Essential Task Lists. The "Xs" indicate those units which listed a particular task. It is interesting to note that only 3 of the 20 tasks (or 15%) are covered by conditions and standards in the current ATKHC Mission Training Plan. These tasks are indicated by bold print.

TASK	1-1	1-24	1-82	1-101	1-227	2-25	2-101	2-229
DEEP ATTACK	X		X		X			X
ATTACK					X			X
HASTY ATTACK	X	X	X	X		X	X	
DELIBERATE ATK	X	X	X	X		X	X	
RECONNAISSANCE	X	X	X	X		X	X	
SCREEN		X		X	X	X	X	
AASLT SECURITY			X	X		X	X	X
ARMED RECON								X
AIR COMBAT		X						X
SECURITY OPNS	X		X					X
JAAT	X	X	X					X
MVMT TO CTCT	X							
REAR AREA OPNS	X		X					
EXPLOITATION	X							
OVERWATCH	X							
AIRCREW RECOVERY		X						
CATTACK					X			
GUARD					X			
SHIPBOARD OPNS			X					
COVER FORCE			X					

Fig. 16. Recapitulation of Unit METLs

This study will now briefly review those missions performed by attack helicopter units while executing recent real-world contingency requirements.

Joint/Combined Military Operations

Operation URGENT FURY

During Operation URGENT FURY U.S. Army attack helicopters conducted extensive reconnaissance and provided security for light infantry as they swept the island of Grenada in search of weapons caches. During this operation primary tasks performed

by attack helicopters were show of force, reconnaissance and overwatch of light infantry forces. Air assault operations were conducted, however, attack helicopters were not used to provide aerial security.

Operation JUST CAUSE

During Operation JUST CAUSE attack helicopters provided air assault security, conducted convoy security, (including the escort of DODDS school buses transporting dependents to the safety of military installations),¹² and provided precision aerial firepower at standoff ranges during MOUT.

Operation PRIME CHANCE

During Operation PRIME CHANCE OH-58Ds configured for attack operations organized as Task Force 118 to operate from U.S. Navy vessels to combat small boat attacks and hamper enemy mining operations of merchant shipping traffic in the Persian Gulf. Between 1987 and 1991 Task Force 118 performed reconnaissance and surveillance, provided armed cover for boarding parties of coalition naval forces while enforcing the U.N. embargo of Iraq, conducted JAAT against Iraqi air defense positions and participated in joint SEAD operations against Iraqi Silkworm missile sites.¹³

Operations DESERT SHIELD/DESERT STORM

In Operation DESERT SHIELD U.S. Army attack helicopter units primary mission was that of reconnaissance and surveillance. As Operation DESERT SHIELD became DESERT STORM, attack helicopters continued to be employed extensively in the reconnaissance and surveillance role as well as providing aerial security for air assault forces; anti-armor missions, screen, suppression of enemy air defenses, joint air attack team and deep attack. Attack helicopters also performed search and rescue operations.

Operation RESTORE HOPE

During Operation RESTORE HOPE, attack helicopter units were employed primarily as a show of force, used successfully as a means of dispersing crowds/vehicles in the streets. Attack helicopters also conducted extensive reconnaissance and surveillance, aerial and convoy security and limited attack missions, primarily directed against destruction of civilian vehicles, operated by personnel in violation of weapons restrictions.

Support of Local, State and Federal Agencies

In addition to the above missions, attack helicopter units also participated in the following search and rescue, border patrol and counternarcotics surveillance missions.

In September, 1991 during Operation BUSH HOG, Ft. Hood Apaches were employed in conjunction with the U.S. Border Patrol to interdict illegal drug traffic entering the U.S. in the area surrounding Laredo, TX. During this operation the Apaches used their forward looking infrared systems to identify personnel and equipment entering the country illegally. The aircrews then guided law enforcement officials who made the arrests.¹⁴

In March 1993 the 101st Airborne Division, in conjunction with the Tennessee and North Carolina National Guard and the Tennessee Emergency Management Agency used Apaches in search and rescue operations after a blizzard had trapped several people in the Smokey Mountains.¹⁵

The following is a recapitulation of tasks performed by attack helicopter units in executing the above mission requirements. These missions represent those which the ATKHB can reasonably expect to perform if U.S. Army forces are called upon to protect national interests. In essence these are the ATKHBs NWO mission requirements.

TASK	OPERATION/SOURCE						
	RVN	UF	IC	PC	DS/S	RH	MTL
SHOW OF FORCE		X	X	X	X	X	
AERIAL SECURITY	X	X	X	X	X	X	X
RECONNAISSANCE/SURVEILLANCE	X	X	X	X	X	X	X
ATTACK	X		X	X	X	X	X
SEARCH AND RESCUE	X				X		X
SECURITY (Screen, Guard, Cover)			X		X		X
SEAD					X		
JAAT					X		X
AIR COMBAT (OFFENSIVE)					X		X
DEEP ATTACK					X		X

RVN (Republic of Vietnam) UF (Urgent Fury), IC (Just Cause), PC (Prime Chance), DS/S (Desert Shield/Desert Storm), RH (Restore Hope) MTL (Mission Essential Task List).

Fig.17. ATKHB NWO Mission Requirements

As the chart above indicates, attack helicopter units have been, and are actively performing, a variety of missions in addition to the anti-armor role for which they were designed. This is due, obviously, to a change in mission requirements driven by a change in the threat and brought about by a changed world order. How then, does the Army accomodate change?

Change is not new. Throughout history the Army has had to respond to change. In the past this was done simply by manning, training, and equipping the force only to the level required to meet the known threat. Sadly, over the course of history, the U.S. Army has paid a great price to learn that this solution itself is both dangerous and inadequate. As a result, the U.S. Army has, as part of the Defense Planning System, implemented a system to ensure its forces are as well trained and equipped as possible (within resource constraints) to meet mission requirements based on likely or probable threats.

This system, known as the Concept Based Requirements System (CBRS) will be the topic of discussion in the following chapter. By understanding this system, we can determine what doctrinal principles should exist to support attack helicopter operations in the New World Order.

Endnotes

¹Howard A. Wheeler, Attack Helicopters, (Baltimore, MD: The Nautical and Aviation Publishing Company of America, 1987):60.

²Ibid., 62.

³Ibid., 63.

⁴Ibid., 63-64.

⁵Richard L. Throckmorton, "Army Attack Helicopters: Can They Survive on the Airland Battlefield?", (MMAS Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS 1992):27.

⁶U.S. Army. FM 1-112, Attack Helicopter Battalion, (Feb 91):1-3.

⁷Ibid.

⁸Rudolph Ostovich, III, MG, "1991: A Year For the Record Books" U.S. Army Aviation Digest (May/June 91):1.

⁹U.S. Army Aviation Center. Army Aviation Interoperability Handbook (Undated):50.

¹⁰Ibid., 47.

¹¹Association of the United States Army. "Army Weaponry and Equipment," Army 1993-94 Green Book (October 1993):270.

¹²James T. Gaetjen, MAJ, "Early Entry Lethality and Survivability Contingency Force Operations Using Army Aviation," (MMAS Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS 1993):43.

¹³Bruce Simpson, LTC, Paul Spencer, CPT and Robert Cumbie, CPT, "4-17th CAV: Mission Accomplished," Army Aviation (31 July 92):35-36.

¹⁴Dave Robinson, MG, "Army Aviation's Role in Counterdrug Operations," U.S. Army Aviation Digest (July/August 1992):2.

¹⁵Gordon R. Sullivan, GEN, "Army Aviation Across the Continuum and Into The 21st Century," Army Aviation (31 May 93):19.

CHAPTER 5

THE ENGINE OF CHANGE

The Concept Based Requirements System

The Concept Based Requirements System (CBRS) is the analytical process the U.S. Army uses to reach decisions regarding the most efficient way it can meet mission requirements. The U.S. Army Training and Doctrine Command (TRADOC) is the proponent for this system. The primary objective of CBRS is to fix capability shortfalls in meeting mission requirements resulting from changing threats and/or emerging technologies in the most cost efficient manner possible. CBRS is based on the premise that any required operational capability can be satisfied by modification or development in one or more of the areas: doctrine development, unit and individual training, leader development, organization modification/creation, material modification and/or acquisition, and soldier systems requirements.

CBRS is designed to receive input from all key organizations having an interest in U.S. Army warfighting capabilities. These organizations include U.S. Army major commands (MACOMs), branch service schools, the Specified/Unified Commanders in Chiefs (CINCs), joint services and U.S. allies. Once all input has been received, analyzed, approved and prioritized, it is integrated into the Defense Planning System where it serves as the Army's "Architecture for the Future" ¹

To accomplish this, TRADOC formulates its projection of battlefield capabilities requirements as derived from the guidance it receives from the CINCs, the Office of the Secretary of Defense, and the Department of the Army, and information contained in the

Defense Planning Guidance and Joint Planning Documents. TRADOC then, based on its assessment of mission requirements across the spectrum of conflict, issues guidance to the functional area branches (service schools) regarding priorities, warfighting concerns and areas of emphasis for Doctrine, Training, Leader development, Organizations and Material, and Soldier Systems (DTLOMS.)

In analyzing this guidance, it then becomes the responsibility of the service schools to assess their capability to meet mission requirements. Where they cannot, they must recommend solutions to obtain the capabilities required to fulfill its role in meeting the Army's warfighting needs. In doing so, CBRS requires the branches to develop required capabilities at the least cost to the government. This requires the branches to first consider doctrinal change as a solution, and progresses through modifications to training, leader development and organizational design before, as a last resort, it recommends a material change to achieve a required capability. The branches then submit their recommended solutions to TRADOC where they are consolidated and placed into categories based on the battlefield operating systems. The resultant document is called the Battlefield Functional Mission Area Analysis. After receiving input from the MACOMs and CINCs (via Integrated Priority Lists), TRADOC develops a list of recommended solutions which represent the most cost beneficial approach to modernizing and enhancing warfighting capabilities in a resource constrained environment.² This list, called the Battlefield Development Plan is presented to a General Officer Steering Committee and, once approved, becomes the Army Modernization Plan. This plan is then integrated into the Defense Planning System where it materializes as the Army's architecture for the future. Figure 18 illustrates key CBRS products and events.

CBRS

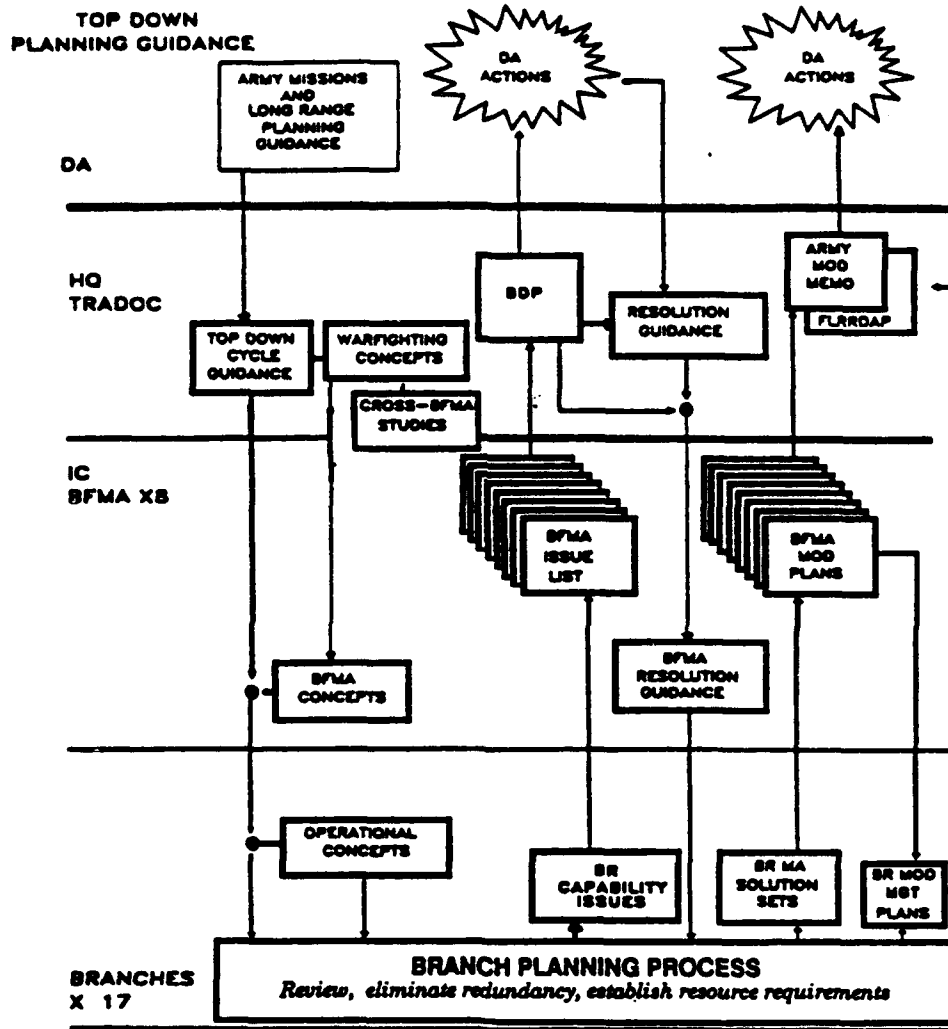


Fig.18. CBRS Products and Events
 (Source: TRADOC Regulation 11-5, p:11)

In the context of this study only the first two elements of the model, namely Doctrine and Training will be addressed. In doing so it must be pointed out that a requirement to change any one of the elements of DTLOMS to meet an operational need

often requires a change to one or more of the other areas. Assessments of leader development, organization, and material issues, however, is beyond the scope of this study, and therefore will not be considered. In any case, doctrine (and training to execute it) is the foundation for achieving any required warfighting capability and as such, all other areas of the model serve to enhance the capability of the force to execute its doctrine.

As discussed earlier, doctrine describes the Army's "fundamental approach to warfighting, influencing events in operations other than war, and deterring actions detrimental to national interests."³ In analyzing this statement it becomes apparent that U.S. Army doctrine should support not only warfighting, but the entire spectrum of Army operations. U.S. Army aviation doctrine, therefore, should describe Army aviation's fundamental approach to warfighting as well as guidelines for its employment across the spectrum of Army operations. FM 100-5 also states that doctrine must be "definitive enough to guide specific operations, yet remain adaptable enough to address diverse and varied situations worldwide"⁴ Attack helicopter doctrine then should not assign specific missions, rather it functions to provide basic principles which guide ATKHB employment in warfighting, influencing events in operations other than war, and deterring actions detrimental to national interests.

Examples of current attack helicopter doctrine include their employment in mass and as maneuver units. As demonstrated during Operation DESERT STORM both of these doctrinal principles are valid. DESERT STORM, however, was only a snapshot on the continuum of Army operations. As it happens, DESERT STORM fit U.S. Army attack helicopter doctrine quite well--an opportunity for ATKHBs to "destroy massed enemy mechanized and other forces with aerial firepower, mobility and shock effect"--all at optimum standoff ranges provided by the desert environment. Indisputably, ATKHB doctrine provides a textbook solution for this type of operation. But what about the application of these principles in other operations (i.e., operations other than war) or in

mountainous or jungle environments? On several occasions we have witnessed the employment of attack helicopters in other operations where the principles of mass and maneuver were not necessarily applicable. In particular, we have seen attack helicopter units more frequently employed merely as a show of force, in an economy of force and in the reconnaissance and surveillance roles. As such, we are seeing attack helicopters being employed in a more decentralized manner rather than in their traditional employment as a battalion using its companies in the continuous, phased and maximum destruction "doctrinal" methods of employment.

Using our analysis of the current world order and those operations in which attack helicopters will likely be employed we can develop a set of key qualities which can be used to determine whether or not U.S. Army attack helicopter doctrine as written is adequate to support the continuum of Army operations. Once we have accomplished this, we can ascertain the training requirements which would facilitate U.S. Army ATKHBs ability to fulfill its doctrinal roles in the New World Order.

Doctrinal Qualities

In order for U.S. Army ATKHBs to maximize their effectiveness in support of Army Operations Doctrine there are certain qualities which attack helicopter doctrine must possess. The first of these qualities is *versatility*. Also a tenet of Army operations doctrine, versatility provides the capability to meet diversified mission requirements.⁵ In the New World Order this may mean providing aerial security for school buses or naval vessels, assisting in search and rescue operations and surveillance of suspected narco-trafficking lines of communication, as well as those missions typically associated with the traditional battlefield framework. In order to be versatile, attack helicopter doctrine must promote the ability of the ATKHB to rapidly tailor or realign its forces and refocus its

efforts on widely divergent mission requirements. In short, versatility implies a capacity to be multifunctional, to operate across the full range of military operations."⁶

The second quality is *adaptability*. Today's force-projection, contingency-oriented Army requires the ATKHB to be prepared to deploy on short notice to virtually any geographical environment. This means that U.S. Army attack helicopter doctrine cannot assume operations in a particular environment or region of the world. Attack helicopters are as likely to be employed today in an urban environment as they are mountain, jungle, maritime or desert areas.

Next, attack helicopter doctrine must be *flexible*. Flexibility means that attack helicopter doctrine must accommodate employment of the ATKHB assets in the most efficient manner possible. This may mean their employment in other than traditional command and control relationships. If the threat situation would make it more efficient to place an attack helicopter company under the operational control of an infantry battalion, for instance while conducting MOUT, or clearing an outlying village, then doctrine must allow for that. This is especially true given the extensive tailoring of forces which often takes place in task organizing units for specific operations such as for operations other than war.

Attack helicopter doctrine must be *contingency-oriented*. This implies that attack helicopter units must be prepared for multiple contingencies. Perhaps more importantly though ATKHBs must be prepared to rapidly deploy into theaters of varying degrees of maturity, possibly as an early entry force without the support normally available from the other elements of the Battlefield Operating Systems (BOS).

Finally, attack helicopter doctrine must recognize and accommodate ATKHB employment as part of *joint, combined, coalition* and *interagency* operations. It must consider the capabilities available from these forces and plan to use them, as well as considering the capabilities it possesses which may enhance the capabilities of other forces

in the theater. Attack helicopter doctrine must acknowledge the value of attack helicopters to other U.S. agencies such as the Bureau of Alcohol, Tobacco, and Firearms (ATF), Drug Enforcement Agency (DEA), Federal Bureau of Investigation (FBI), National Park Service, and U.S. Border Patrol as well as state and local government, which from time to time, will request their assistance. This assistance can range from night search and rescue to locating marijuana crops to the delivery of precision munitions against known illicit drug producing facilities.

These then are the key qualities which must be inherent in U.S. Army attack helicopter doctrine in the New World Order. A doctrine that does not inculcate these qualities does not accept the realities of attack helicopter employment across the operational continuum and therefore assumes the risk of unpreparedness when called upon to perform.

Unfortunately, accepting these qualities within doctrine is only part of the solution. Doctrine that cannot be executed or doctrine that is written and not acted upon influences nothing beyond the printing press.⁷ In order to be executable, doctrine must be supported with training. Documents which support training at the collective level are tactics, techniques and procedures manuals and Mission Training Plans (MTPs). Tactics, techniques and procedures manuals should describe the necessary methods, options and detailed steps (where appropriate) to execute doctrine. MTPs, on the other hand, provide tasks, conditions and standards which enable a force to execute its prescribed tactics, techniques and procedures. In doing so, the mission training plan serves two critical functions. First, it provides a common reference in developing and managing unit training programs, and second it serves as a standard means of evaluation in determining the state of operational readiness of attack helicopter units. Ideally, the tactics, techniques and procedures manual for the ATKHB should provide the methods, options and detailed steps required to execute any mission the ATKHB is called upon to perform. As a

minimum, however, it should address those missions identified in Chapter Four, as these are the missions the ATKHB has recently performed, are currently training to perform, and therefore will most likely be called upon to perform in the future. Additionally, where tactics, techniques and procedures are conditionally dependent, for instance where they differ at night or in mountainous versus desert terrain, the tactics, techniques and procedures manual should explain what modifications, if any, need to be made.

The Mission Training Plan (MTP) on the other hand, should ideally contain tasks, conditions and standards for each of the missions that an ATKHB will be required to perform. Additionally, where special staff coordination is required, such as in the case of joint, combined or coalition operations, the MTP for the battalion staff and/or its companies should reflect those requirements, as appropriate.

Summary

This chapter has discussed how the Army accommodates change. In accordance with the Concept Based Requirements System, the first step is to modify, or if required, develop doctrine to meet a newly identified requirement. In doing so this study determined certain doctrinal qualities which should be inherent in order for attack helicopter doctrine to adequately support operations within the New World Order. These qualities include *versatility*, *adaptability*, and *flexibility*; the fact that ATKHB doctrine must be *contingency oriented* and that it must recognize and accommodate operations in support of *joint*, *combined*, *coalition*, and *interagency* operations.

Additionally, this chapter discussed the role of the tactics, techniques and procedures manual in providing the methods, options, and detailed steps which enable ATKHBs to carry out doctrinal employment. Finally, this chapter discussed the Mission Training Plan as a tool to be used to formulate training plans, and as a standard means of measuring unit operational readiness.

To be most effective, each of these documents must support one another. Additionally, the sum of the information contained in these publications must be closely tied to fulfilling the ATKHBs inherent responsibilities in executing the entire spectrum of Army operations. Do these ties exist? Does current doctrine as written support the entire spectrum of Army operations?

In the following chapter this study will assess the current state of ATKHB doctrine and training publications. This information will then be analyzed in the context of the missions, doctrinal qualities, and training requirements previously identified in this study. The result of this analysis will indicate the degree of adequacy of current DTTP to support attack helicopter operations in the New World Order.

Endnotes

¹U.S. Army. TRADOC Regulation 11-5, Concept Based Requirements System (August 1989):11.

²Ibid., 11

³U.S. Army. FM 100-5, Operations (June 1993):1-1.

⁴Ibid., 1-1.

⁵Ibid., 2-9.

⁶Ibid.

⁷Timothy T. Lupfer, Combat Studies Institute, U.S. Army CGSC, Ft. Leavenworth, Leavenworth Papers (No. 4) "The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War," (July 1981):viii.

CHAPTER 6

WHERE DO WE STAND?

There are currently five key doctrinal publications governing the employment of the ATKHB: The Aviation Warfighting Treatise; FM 1-100, Doctrinal Principles For Army Aviation in Combat Operations; FM 1-111, Aviation Brigades; FM 1-112, Tactics, Techniques and Procedures for the Attack Helicopter Battalion; and ARTEP 1-187-30 MTP, Mission Training Plan for the Attack Helicopter Company. By definition, these publications together should provide a hierarchy of information, from the basic principles of employment as outlined in the Warfighting Treatise, to the detailed steps required in carrying out mission requirements in accordance with the Mission Training Plan.

The purpose of this chapter is to summarize the current focus of these doctrinal and training publications. This information will then be analyzed against the ATKHB's NWO mission requirements as identified in Chapter 4 and against the key doctrinal qualities required, which were identified in Chapter 5. This analysis will lead to a determination regarding the overall adequacy of attack helicopter doctrine to support operations within the New World Order. Following is a summary of each of these publications, beginning with the Warfighting Treatise and working down to the Mission Training Plan.

Aviation Warfighting Treatise

Aviation possesses inherent characteristics which guarantee that it will play a significant, if not unique role throughout the range of military operations.¹

U.S. Army Aviation Warfighting Treatise

The Aviation Warfighting Treatise, published in August 1993, is Army Aviation's most recent doctrinal publication. The purpose of this "Treatise" is "to capture the essence of aviation and those principles upon which it is employed across the range of military operations."² As such, the Treatise acts as the Aviation Branch's theoretical doctrinal focus.

According to the Warfighting Treatise, the primary purpose of attack helicopter operations is the destruction of enemy armored and artillery units.³ The Treatise acknowledges the fact that in the New World Order the most likely operations will occur on the lower end of the operational continuum, that is up to and including conflict.

The Aviation Warfighting Treatise emphasizes the role of the ATKHB as a maneuver force. It states that attack helicopters are employed as units, in mass, against *maneuver objectives*, not individual targets, just as are ground maneuver units. It emphasizes that attack helicopters are primarily employed at division level, against deep targets and on flanks, and secondarily in support of ground maneuver elements.

The ATKHB has three primary *missions*: attack, air assault security, and air combat. It may be attached to cavalry units to conduct reconnaissance and security. Finally, the ATKHB is capable of influencing a host of *operations* which include: early entry, hasty and deliberate attack, exploitation, pursuit, armed reconnaissance, covering force, economy of force, reserve, delay, counterattack, counterreconnaissance, reconnaissance, withdrawal and retirement. The ATKHB is capable of performing these operations day or night across the deep, close and rear battle areas.

FM 1-100

The main purpose of Army Aviation attack operations is to defeat enemy armored, mechanized and helicopter forces.⁴

FM 1-100

FM 1-100, Army Aviation in Combat Operations, dated February 1989, is Army Aviation's Capstone doctrinal manual. It emphasizes the employment of aviation as an "air maneuver" force, capable of conducting operations across the spectrum of conflict, and across the deep, close and rear areas of the battlefield. It also emphasizes that aviation forces must be prepared to be employed alongside and in support of joint, combined and coalition forces.

FM 1-100 states the "main purpose of aviation attack operations is to defeat enemy armored, mechanized and helicopter forces."⁵ In doing so, the ATKHB provides the following *capabilities*: antiarmor, air combat, aerial security, joint air attack team, supporting fires, antipersonnel, and suppression of enemy air defenses. Finally, the ATKHB is employed as a battalion, in support of the division scheme of maneuver. By exception, the ATKHB may, for limited times, and for specific missions be placed under the operational control of a brigade or larger ground maneuver element.

FM 1-111

FM 1-111, Aviation Brigades, dated August 1990 provides a comprehensive description of aviation operations at the brigade level. The mission of the aviation brigade is "to find, fix, and destroy enemy forces through fire and maneuver."⁶ Although it is not organized like a maneuver brigade, the aviation brigade performs maneuver operations either independently, or when task organized as a member of a joint or combined arms force.

As a maneuver force, the aviation brigade performs attack, reconnaissance and security, air assault, air combat, special operations, and C3I enhancement during both the offense and the defense and across the deep, rear, and close battle. Attack *objectives* include antiarmor, antipersonnel, air combat, JAD, JAAT, and the destruction of enemy facilities and material.⁷

Although not a primary mission, the ATKHB also performs reconnaissance operations. Additionally, the ATKHB performs air assault security, and must be prepared to conduct air combat at all times. In the attack, the ATKHB is employed as a battalion, which employs its companies in either a continuous, phased, or maximum destruction method of attack.

Finally, in low-intensity conflict, the ATKHB will operate in coordination with, and in support of friendly foreign forces and other government agencies as part of joint, combined and interagency operations.⁸ For operations in LIC, the aviation brigade will normally deploy only a slice element from each of its subordinate battalions, as dictated by METT-T. In this case the ATKHB may deploy only one or two of its companies as part of an Aviation Task Force. This task force will normally be commanded by one of the brigades subordinate battalion commanders. During LIC, particularly in support of insurgency/counterinsurgency, peacekeeping, and antiterrorism, aviation's primary role will be that of air movement, reconnaissance and surveillance. During peacetime contingency operations, however, such as peacemaking, shows of force and demonstrations, unconventional warfare, counternarcotics, and strikes and raids, the ATKHB may expect to become engaged in combat operations. In most cases existing doctrine, tactics, techniques and procedures are adequate, but will have to be modified to fit the given situation.⁹

FM 1-112

The mission of an ATKHB is to destroy massed enemy mechanized forces and other forces with aerial firepower, mobility, and shock effect.¹⁰

FM 1-112

FM 1-112, Tactics, Techniques, and Procedures for the Attack Helicopter Battalion, dated February 1991 describes doctrinal employment of the ATKHB at the

execution level. It states that the primary mission of the ATKHB is the destruction of massed enemy armor and mechanized forces. In performing this mission, the ATKHB will also conduct SEAD, coordinate and adjust indirect fires, conduct reconnaissance and security, conduct offensive and defensive air combat, destroy enemy communications and logistical assets, and conduct JAAT. The ATKHB also conducts hasty and deliberate attacks, exploitation, and pursuit as well as reconnaissance in force and air assault security, which are characterized as "*special purpose operations*." The ATKHB performs these missions throughout the close, deep and rear areas of the battlefield and across the spectrum of conflict. While the tactics, techniques and procedures apply to all levels of conflict, in mid-to-high intensity conflicts the ATKHB will tend to be used more in mass than in low-intensity conflict, where it will likely be task organized with other aviation assets.

Regardless of the mission, the ATKHB should be employed as a battalion and not as individual companies, or as pairs of aircraft in a fire support role. When supporting ground forces the ATKHB is normally placed under the operational control of the supported unit, normally of brigade-size or larger. Additionally, the ATKHB or a portion thereof can be attached to an aviation task force, or the ATKHB can be designated as the task force headquarters for other aviation or ground maneuver elements.

FM 1-112 provides in-depth discussion on task organization, planning considerations, and the tactics, techniques and procedures associated with an antiarmor mission in the context of the traditional battlefield framework. In a separate annex, FM 1-112 also provides the same level of detail for a cross-FLOT operation using a scenario where the ATKHB is tasked to destroy an enemy second-echelon tank division.

FM 1-112 also includes separate annexes for SEAD and air combat, however, the information provided is limited to general discussion and planning considerations, as opposed to tactics, techniques and procedures.

In its discussion on the effects of terrain and weather, FM 1-112 states that the ATKHB can operate in jungle, mountainous, urban or desert terrain. Of these areas, the ATKHB is most effective in open rolling terrain and least suited for operations in an urban environment.

ARTEP 1-187-30 MTP

The attack helicopter company has three critical wartime missions: Conduct hasty attacks, conduct deliberate attacks, and perform air assault security operations.¹¹

Mission Training Plan For the Attack Helicopter Company

ARTEP 1-187-30-MTP dated May 1989 is the Mission Training Plan for the Attack Helicopter Company. This document serves as the primary training and evaluation tool for the ATKHB and its companies. As a Mission Training Plan (MTP) this manual describes the principle missions that the ATKHC is expected to execute with a "high level of proficiency."¹² The ATKHC MTP defines these missions as hasty attacks, deliberate attacks and air assault security.¹³ In order for the ATKHC to execute these missions successfully, it must be able to perform a number of supporting tasks at the company level.

The MTP designates those company level tasks that the unit must be able to perform. For each task the MTP prescribes the conditions under which it must be performed and the standard which, if attained would indicate successful performance of that task. In determining the overall level of proficiency, each task includes several subordinate tasks, each of which is assessed on a "GO" / "NO GO" basis. The results of these sub task assessments result in an overall rating of "T" (Fully Trained), "P" (Needs Practice), or "U" (Untrained) for each task.

These overall ratings provide an assessment of the ATKHCs combat readiness, and therefore enable the ATKHB commander to maximize use of training resources by concentrating on those areas where weakness is indicated.

ARTEP 1-187-30 MTP lists the following maneuver tasks as those which must be performed successfully in order for the ATKHC to perform its critical wartime missions of hasty attack, deliberate attack and air assault security:

1. Move to and Occupy Assembly Area
2. Secure Unit Position
3. Detect and React to OPFOR
4. Perform Consolidation and Reorganization
5. Conduct Movement to a Holding Area
6. Move to and Occupy a Battle Position
7. Engage Targets
8. Move From a Battle Position
9. Conduct a Tactical Air Movement as Part
of a Movement to Contact or an Air
Assault Security Operation
10. Conduct JAAT Operations
11. Conduct Deliberate Air Combat Operations
12. Conduct Hasty Air Combat Operations
13. Conduct Downed Aircrew Recovery Operations

Summary

In considering the flow of information outlined in the above publications some general conclusions can be drawn. The first of these is an indication that there are apparent differences or inconsistencies among the various publications in describing what the primary roles of the ATKHB are. Specifically, the Warfighting Treatise states that

"The primary purpose of attack helicopter operations is the destruction of enemy armored and artillery units."¹⁴ FM 1-100, on the other hand states "the main purpose of Army aviation attack operations is to defeat enemy armored, mechanized and helicopter forces."¹⁵

There is also variation in describing the missions that the ATKHBs perform. For example, the Warfighting Treatise states that ATKHBs perform the missions of attack, air assault security and air combat, and may perform reconnaissance and security. According to the MTP, however, "the attack helicopter company has three critical wartime missions: hasty attack, deliberate attack and air assault security." While these inconsistencies may be explained as merely an issue of semantics, it nonetheless leaves open for interpretation, both within and outside the aviation community, what missions attack helicopter units can and actually do perform. Similar confusion results from the use of mixed terminology throughout these manuals in describing attack helicopter employment in terms of roles, functions, tasks, capabilities, operations and objectives. Since none of these terms are used in a consistent manner among the various publications, it is difficult to track one of the above from one manual to the next. The overall result is the appearance of an uncoordinated and ill-defined doctrine.

Differences in semantics notwithstanding, there are certain elements that become readily apparent in each of these publications. These elements or principles are: the ATKHB is a maneuver force to be employed as a battalion, in mass, against predominantly armored forces; the ATKHB will normally operate as part of a joint or combined operation, across the spectrum of conflict and battlefield framework; and that ATKHBs can be employed in jungle, mountainous, desert, and urban environments.

In the next chapter this study will analyze current doctrinal qualities and mission requirements against those deemed necessary for attack helicopter operations in the New World Order.

Endnotes

¹U.S. Army. Aviation Warfighting Treatise (August 1993):3.

²Ibid., Preface.

³Ibid., 11.

⁴U.S. Army. FM 1-100, Doctrinal Principles for Army Aviation in Combat Operations (February 1989):2-15.

⁵Ibid.

⁶U.S. Army. FM 1-111, Aviation Brigades (August 1990):1-2.

⁷Ibid., 3-9.

⁸Ibid., D-2.

⁹Ibid., D-8.

¹⁰U.S. Army. FM 1-112, Tactics, Techniques and Procedures for the Attack Helicopter Battalion (February 1991):1-3.

¹¹U.S. Army. ARTEP 1-187-30 MTP, Mission Training Plan For the Attack Helicopter Company (May 1989):1-2.

¹²Ibid., iii.

¹³Ibid., 1-2.

¹⁴ U.S. Army. Aviation Warfighting Treatise (August 1993):11.

¹⁵ U.S. Army. FM 1-100, Doctrinal Principles For Army Aviation in Combat Operations (February 1989):2-15.

CHAPTER 7

ANALYSIS

In analyzing the information contained in Chapters Four through Six, this study will be able to answer the research question: "Does U.S. Army Attack Helicopter Doctrine Adequately Support the Scope of Attack Helicopter Operations in a Multi-Polar World?"

Unfortunately, based on the abundance of information researched, and varying degrees of recency of its publishing (although all were "current"), the answer to the thesis question will not be one of a simple "yes" or "no." However, based on an analysis of the information compiled this study will be able to draw some general, as well as specific conclusions.

In conducting this analysis, this study assumes a relatively simple approach. Essentially this approach will look at "what is" versus "what should be." The "what is" comes from Chapter 6, "Where Do We Stand?" while the "what should be" comes from Chapter 4, "The Attack Helicopter and the New World Order" and Chapter 5, "The Engine of Change."

In Chapter 4, "The Attack Helicopter and the New World Order," this study discussed the evolution of the attack helicopter through a brief look at its historical employment. It then determined the future roles the ATKHB will likely play based on previous and ongoing employment, current ATKHB Mission Essential Task Lists and Army Operations Doctrine. These future roles are referred to as "documented requirements." In Chapter Five, "The Engine of Change," this study looked at how the U.S. Army accommodates newly defined mission requirements and, based on the current

world order and subsequent requirements it places on the ATKHB, outlined key doctrinal qualities that would facilitate the effective employment of the ATKHB in carrying out Army Operations Doctrine. Finally, in Chapter Six, "Where Do We Stand," this study completed a "top-to-bottom" review of present aviation and attack helicopter doctrinal, tactical and training publications to outline the current information governing the employment of the ATKHB.

To simplify this analysis, it will be "packaged" into two parts. Part one will analyze doctrine, while part two will analyze mission requirements, which includes an analysis of tactics, techniques and procedures.

Part I - Doctrinal Analysis

In Part I of the analysis, this study will look at current doctrinal principles governing employment of the ATKHB and compare them to those principles or "key qualities" deemed necessary for effective employment of the ATKHB in support of Army Operations Doctrine.

In revisiting current doctrinal publications (Aviation Warfighting Treatise, FM 1-100, FM 1-111, FM 1-112) seven doctrinal principles emerged. These include:

1. The ATKHB is a **maneuver force**
2. The ATKHB is **employed as a battalion**
3. Attack helicopters are **employed in mass**
4. ATKHBs are **employed across the spectrum of conflict**
5. ATKHBs are **employed as part of Joint and Combined Operations**
6. ATKHBs are **employed across the battlefield framework**
7. ATKHBs can be **employed in jungle, mountainous, desert and urban environments.**

A brief analysis of each of the above principles follows:

1. **The ATKHB is a maneuver force.** Each of the doctrinal publications researched clearly states that aviation, to include the ATKHB is a maneuver force. This statement, however, is clouded by seemingly contradictory statements to the effect of "The Aviation Brigade is not a maneuver brigade"¹ or that aviation lacks the combat support and combat service support "to permit the routine commitment of the aviation brigade as a maneuver force."² This type of verbiage causes some confusion and leaves this issue open to some discussion. In discussion on its employment as a maneuver force (or "air maneuver" force as is used in the Warfighting Treatise) it states that the ATKHB is assigned maneuver "objectives," and not "targets." This could also be misinterpreted to mean that it would be inappropriate to use attack helicopters to destroy such things as an enemy early warning radar or relocatable missile systems.

2. **The ATKHB is always employed as a battalion.** Doctrine states emphatically that the ATKHB is "always employed as a battalion." The only exception mentioned is in the case of an air assault security mission, where the ATKHB commander felt he only needed the firepower of one of his ATKHCs. On the other hand, however, in discussion of low intensity conflict, doctrine states that (and recent history confirms) a single attack helicopter company could deploy as part of a composite battalion-size task force. This raises some questions as to why "doctrinally" the ATKHB *must* be employed as a battalion. In addition to its employment as a battalion, doctrinally ATKHBs are the smallest element to be placed OPCON to ground forces. Additionally, when this is done, it is as an exception, and the ATKHB will not be placed OPCON to smaller than a brigade-sized element. This doctrinal principle neglects to take into account the tactical situation or, what is commonly referred to as "METT-T." This is especially true for operations in less than full scale war, where composite battalion-size task forces will likely be employed alone or in separate locations or sectors.

3. **Attack helicopters are employed in mass.** By doctrine, attack helicopters are always employed in mass in order to overwhelm the enemy with firepower and shock effect. While this principle certainly applies to its stated primary mission to "destroy massed enemy mechanized and armored forces," it may not necessarily apply to other operations, such as operations other than war. As recent history has shown, attack helicopters in fact are being employed in pairs to accomplish missions such as aerial security, reconnaissance, surveillance, and as a show of force.

4. **The ATKHB is employed across the spectrum of conflict.** This principle has been validated as ATKHBs or *elements* thereof have participated in operations ranging from peacetime search and rescue to Operation RESTORE HOPE to Operation DESERT STORM. Nevertheless, virtually all doctrinal discussion and example scenarios are based on a traditional Soviet-style armored threat. Current DTTP lack detailed information on how attack helicopters might accomplish tasks in other than a wartime role. The current philosophy is that wartime DTTP need only be "modified" to accommodate operations other than war.

5. **The ATKHB will operate as part of joint, combined and coalition forces.** This principle has also been validated during recent operations including Grenada, Panama, Southwest Asia and in Somalia. It should be noted, however, that there are no tasks within the brigade/battalion staff Mission Training Plan which address staff requirements to coordinate and conduct operations as part of a joint, combined or coalition force.

6. **The ATKHB will operate across the battlefield framework.** Assuming there is a "close, deep, and rear battle" the ATKHB possesses the mobility, lethality and

visionics which make it a valuable asset in each of these areas. Doctrine provides detailed information on how the ATKHB performs its mission within the "traditional" battlefield framework, however there is very little discussion on how an attack helicopter unit might be employed in operations where there are no distinctions between the close, deep and rear battle.

7. The ATKHB can operate in jungle, mountainous, desert and urban terrain. Doctrine is limited to general considerations in describing operations in the above environments. Additionally, doctrine does not address operations in a maritime environment -- which today would be a highly likely scenario. In discussion on MOUT, doctrine states that attack helicopters are not well suited, and therefore should remain on the outskirts and engage mechanized forces attempting to bypass. This, of course assumes there are mechanized forces, and that they are attempting to bypass and not occupy. In reality, attack helicopters may be effective in MOUT, as they were during JUST CAUSE, with the ability to "put a hellfire missile through a window," and in Somalia, as an effective deterrent due to the psychological effect produced by their mere presence.

This study will now analyze the above principles against those qualities deemed necessary to support Army Operations Doctrine. In doing so, this study will look at these qualities to determine how well current doctrine supports each of them. These key qualities which were defined in Chapter Five are: *versatility, adaptability, flexibility, contingency-oriented and employment as part of joint, combined, coalition, and interagency operations.*

To be *versatile*, doctrine should support the capability to meet diversified mission requirements. In this context, current doctrine is lacking. Although virtually all doctrinal literature states that the ATKHB will operate across the spectrum of Army Operations, there is little discussion on how this might be done. While current doctrine

painstakingly addresses the role of the ATKHB as a maneuver force in a medium-to-high intensity environment, there is very little discussion on the use of the the ATKHB to do anything short of deep attack or to destroy massed mechanized forces. Current doctrine oversimplifies the problem by stating that current DTTP can easily be modified to fit any level of conflict. If this is in fact the case, then TTP manuals should discuss what those modifications might be, rather than leaving it to trial and error, a method which was quite costly during our experience in Vietnam. Attack helicopters bring many capabilities to every operational environment, in addition to the capability to attack in mass. In that regard, attack helicopter doctrine should not only state it, but must be designed to facilitate operations across the entire operational continuum, from humanitarian assistance to full scale war. Each of these capabilities should be articulated in doctrine, and the means to employ them should appear in the form of tactics, techniques and procedures.

By being *adaptable*, doctrine should support operations in virtually every geographical environment in which the ATKHB may be called up to perform. In today's world, that includes desert, mountain, jungle, urban, winter and maritime. As mentioned, discussion of the implications of these various environments is limited to general considerations, and discussion of any kind in regard to overwater or shipboard operations is non existant.³ It is interesting to note that in November 1990, four months into Operation DESERT SHIELD, the U.S. Army Aviation Center published and quickly distributed a document entitled: U.S. Army Aviation Desert Operations--Tactics, Techniques and Procedures, Southwest Asia Focus. The development of this manual is certainly a step in the right direction, however, in a contingency-oriented Army, we may not always have the four to six months it takes to produce and distribute a manual--a manual which must then still be read, understood and trained to.

Flexibility relates to the ability to quickly and efficiently organize the force, based on an analysis of METT-T, then task organize and assign missions in the most

efficient manner possible. To say that the ATKHB is "*always* employed as a battalion" or is *always* employed in a maneuver role is contradictory to this principle. To further complicate the issue, ATKHB doctrine, after stating that the ATKHB must be employed as a battalion "to retain its robustness" states that a single ATKHB may be employed in an air assault security mission, or may deploy as part of a composite battalion task force. Yet when it comes to supporting a ground force it would be "doctrinally incorrect" to OPCON less than the entire ATKHB to less than a ground maneuver brigade. This type of doctrine sends a confusing message and does not lend itself to the flexibility required of a contingency-oriented Army in today's world order.

Being *contingency-oriented* is as much a mind-set as it is a physical requirement. Because the Army as a whole is transitioning from forward-based to power-projection, the emphasis is on rapid deployment. Therefore, the resources are being allocated. Although our tactics, techniques and procedures manuals are designed for operational employment, not *deployment*, the Warfighting Treatise, as well as a February 1993 planning guide entitled Aviation Deployment For Contingency Operations adequately addresses the ATKHB's need and requirements to rapidly deploy. This emphasis can be traced down to the unit level, as the task "Alert, Upload and Deploy" (sea, air and rail) appeared on 100 percent of the ATKHB Mission Essential Task Lists used in this study.

Finally, ATKHB doctrine must facilitate *joint, combined, coalition, and interagency operations*. This principle is receiving a great deal of attention as a result of the New World Order, as well as the result of reduced force structures. Aviation doctrine clearly states that all future conflicts will likely be of a joint and combined nature. In fact, Aviation doctrine permeates with jargon such as "aviation exploits the aerial dimension of the joint battlefield" as well as other statements such as "aviation will play a major, if not unique role in the nation's war on drugs." While these statements may very well be true, very few units are doing more than occasional Joint Air Attack Team training.

Additionally, current doctrinal and training publications lack any specifics on what the staff must do to facilitate operations in a joint, combined, or coalition environment.

Based on the above analysis, the following is a subjective graphic representation of the degree of adequacy that current ATKHB doctrinal principles truly support those qualities deemed necessary to fulfill Army Operations Doctrine.

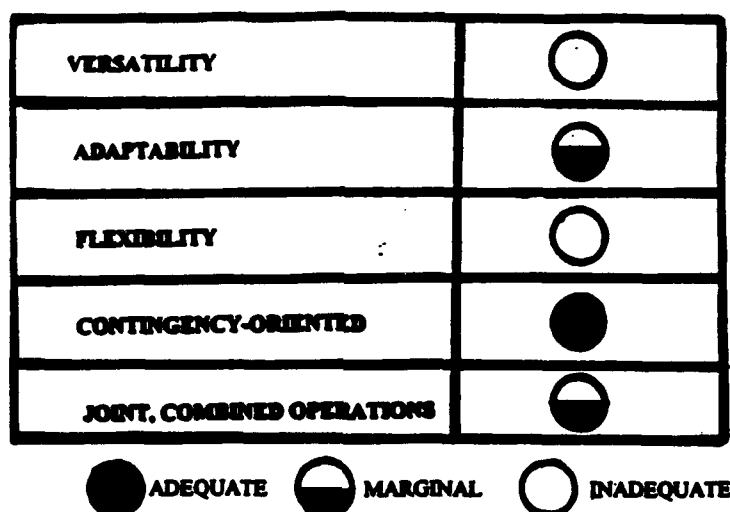


Fig. 19. Assessment of Doctrinal Principles

Part II - Missions, Tactics, Techniques, and Procedures

The second part of this analysis will look at those missions designated as "documented requirements" in Chapter Four to see how well they are supported by current doctrinal and training publications. To be completely adequate these documented mission requirements must meet three criteria. First, the requirement should be stated as a doctrinal mission. Second, tactics, techniques and procedures should exist to indicate how the mission can, should, or must be performed. And third, conditions and standards should exist in which the degree of proficiency required can be measured. Where one of

these criterium is not met, a void exists and corrective action should be taken. This process, and the corrective action required is graphically depicted in Figure 20 below.

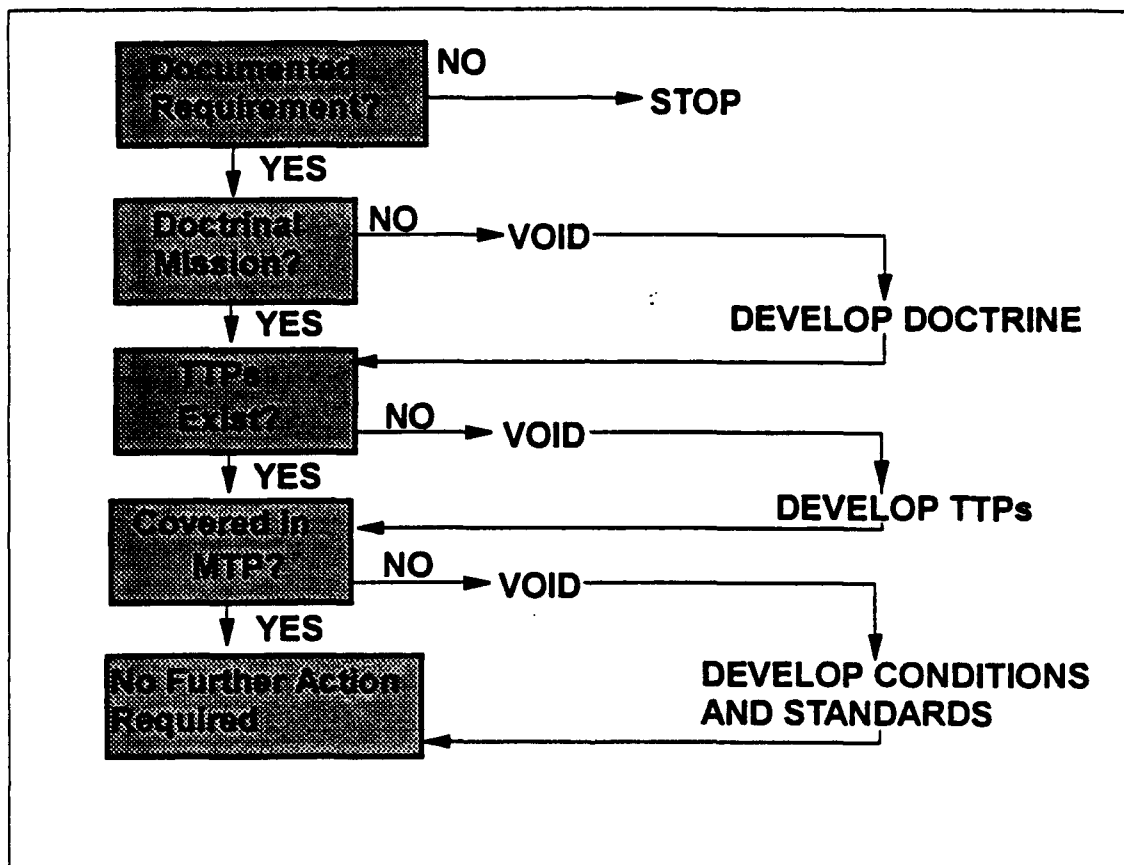


Fig. 20. Doctrinal Assessment Process Model

This assessment will be accomplished in two steps. The first will be an analysis of those missions found in the current doctrinal and training publications discussed in

Chapter 6. Each of these missions will be assessed using the model outlined above. This method will result in visibility over the degree of completeness in which each mission can be traced from doctrinal requirement through the Mission Training Plan.

In step two of this assessment, each of the documented mission requirements which emerged in Chapter Four will be compared to the results of the assessment in step one. This process will lead to a determination of those documented requirements that are completely addressed in current U.S. Army aviation doctrine, tactics, techniques and procedures manuals as well as those that are only partially addressed or possibly not addressed at all.

This process will result in a methodical and comprehensive assessment in determining the adequacy of existing doctrine, tactics, techniques and procedures to support Army Operations in the New World Order.

To accomplish step one, this study will first extract the ATKHB mission requirements as stated in the doctrinal publications reviewed in Chapter Six. These publications include the Aviation Warfighting Treatise, FM 1-100, FM 1-111, FM 1-112, and ARTEP 1-187-30 MTP.

In establishing these "mission" requirements, this study encountered some difficulty. This is due to non-standardized terminology among the various publications to delineate any differences between the words "mission," "role," "task," "function," "purpose," "operation," "objective," and "capability." For the most part these words are used interchangeably among each of the publications reviewed. As an example, according to FM 1-112, JAAT is a mission, while in the MTP it appears as a task. Similarly, the MTP lists Air Assault Security as a mission, while FM 1-112 lists it as a "special purpose operation."

To further illustrate this problem, Figure 21 shows those requirements which would emerge if one were to consult the various aviation doctrinal publications strictly

looking for ATKHB "missions." As shown, no single "mission" can be found in all five publications. It would, therefore, depend upon which particular manual one were to consult as to the answer he would get.

<u>AVN W/T</u>	<u>FM 1-100</u>	<u>FM 1-111</u>	<u>FM 1-112</u>	<u>MTP</u>
ATTACK	ATTACK	ATTACK		ATTACK
AASLT SECTY		AASLT SECTY		AASLT SECTY
AIR CBT	AIR CBT	AIR CBT	AIR CBT	
RECON	RECON	RECON	RECON	
SECTY	SECTY	SECTY	SECTY	
	SCREEN			
	AERIAL SECTY			
	JAAT		JAAT	
	SEAD		SEAD	
	ANTI-PERS			
	ANTIARMOR		ANTIARMOR	
	SPT'G FIRES			
	JSAC			
	ANTI MAT'L			
	LASER DESIG.			
			COORD/ADJ IND./FIRES	

Fig. 21. ATKHB "Missions"

This may seem insignificant, but in fact could cause unnecessary confusion not only within the aviation community, but more so among others who are trying to understand what it is Army aviation does. To overcome this problem, for the purpose of this study the author has applied his professional military judgment in compiling a consolidated list of those requirements listed as missions, as well as those requirements listed in "other categories" which could be considered missions in the context of "mission" as defined in JCS Pub 1-02. These are generally ATKHB requirements which would require the application of tactics, techniques and procedures to execute. This list results in ten missions as listed below.

1. ATTACK (INCLUDES HASTY AND DELIBERATE)
2. AIR ASSAULT SECURITY
3. AIR COMBAT
4. RECONNAISSANCE (AREA, ROUTE, ZONE)
5. SECURITY (SCREEN, GUARD, COVER)
6. JAAT
7. SUPPORTING FIRES
8. SEAD
9. SURVEILLANCE
10. SEARCH AND RESCUE

In the next step, this study will analyze the above requirements in accordance with the model on page 80. In doing so, each of the above requirements automatically passes the first test as a "documented requirement," since each was extracted from an official doctrinal publication.

This study will now assess each of the ten missions against the remaining three criterium by asking the following questions: 1) Is it a doctrinal mission? 2) Do TTPs

exist? and 3) Is it covered in the MTP? If the answer is "yes" to each of these questions, then that mission is considered to be adequately addressed.

1. **Attack.** This mission includes hasty as well as deliberate attacks. It is covered in depth as a doctrinal mission, is addressed extensively within the TTP manual and has associated tasks, conditions and standards outlined in the MTP. This mission meets all three criterium and is therefore adequately covered.

2. **Air Assault Security.** Air Assault Security is adequately stated as a doctrinal mission. FM 1-112 discusses tactics and techniques, however it lacks any specific procedures such as communications requirements, aircraft formations, distances, fire support requirements etc. Additionally, although listed in the MTP as one of the ATKHCs "three critical wartime missions," no conditions or standards exist. This mission has voids in two of the three criterium.

3. **Air Combat.** Air Combat is a stated requirement in virtually every doctrinal publication. At the doctrinal level, however, there is conflicting information regarding the role the ATKHB will play in this area. For instance, while FMs 1-100, 1-111, and 1-112 state that air combat will be a high priority of the threat, the Warfighting Treatise states that the cost of aircraft maintenance and aircrew training will make air combat a low priority. Thus, according to FMs 1-100, 1-111 and 1-112, air combat will likely be a primary mission requiring dedicated aircraft, while according to the Warfighting Treatise air combat is purely defensive in nature, and therefore, may occur by chance while the ATKHB is executing one of its other assigned missions. Either way, specific procedures do not currently exist. FM 1-112, in its appendix on air combat limits its discussion to planning considerations, tactics and techniques, and does not address procedures.

FM 1-107 on the other hand does address procedures, however, this manual is no longer in use. A replacement for this manual is expected as a result of an air combat test conducted at Fort Rucker, AL between September 1992 and September 1993, however,

currently no approved air combat procedures exist. The MTP addresses air combat in two separate tasks: *Hasty Air Combat* and *Deliberate Air Combat*. These terms cannot be found in any other aviation doctrinal publication. It is assumed, however, that these two terms apply to defensive air combat and offensive air combat respectively, as used in other publications. In this case conditions and standards exist. Air combat then, as a doctrinal requirement is partially adequate at the doctrinal level, partially adequate in terms of TTPs and adequate in terms of being covered in the MTP.

4. **Reconnaissance.** Although listed as a secondary mission, reconnaissance does appear as a doctrinal mission for the ATKHB. Because however that reconnaissance has traditionally been a cavalry mission, it is not covered in ATKHB TTP or MTP manuals. In reality reconnaissance is one of the primary missions of the ATKHB and as such, should be addressed in ATKHB TTP and MTP manuals. Currently it is not.

5. **Security.** Like reconnaissance, security has also traditionally been a cavalry mission, however, today it is likely a primary mission to be assigned to the ATKHB. It is listed as a doctrinal (although secondary) mission, however, is not addressed in ATKHB TTP or MTP manuals.

6. **JAAT.** Joint Air Attack is one of the ATKHB mission requirements that is thoroughly addressed in doctrine, TTPs and is supported by conditions and standards outlined in the Mission Training Plan.

7. **Supporting Fires.** This mission is discussed doctrinally as one which the ATKHB may occasionally perform. There are no TTPs or conditions and standards for this mission. All TTPs discussed in FM 1-112 are done so in the context of antiarmor with the ATKHB in the "maneuver" role. Similarly the MTP task "Engage Targets" assumes the ATKHC in the antiarmor role, making no reference to the presence of a supported ground force. Therefore, although "Supporting Fires" is stated as a possible mission at the doctrinal level, there are no TTPs or conditions and standards to support it.

8. **SEAD.** SEAD is a stated doctrinal mission for the ATKHB. Both FM 1-111 and 1-112 contain a Deep Operations appendix which discuss tactics and techniques for accomplishing SEAD, but both (which are identical) lack any detailed procedures. FM 1-112 also contains a separate appendix for SEAD, but it is limited to general discussion, primarily addressing definitions and planning considerations. It then refers the reader to TRADOC TT-100-44-1. In consulting this manual, one finds that it is an Airland Forces Application (ALPHA) Agency Publication entitled Joint Suppression of Enemy Air Defenses (J-SEAD) Operations, dated 11 June 1982. The scope of this publication, however, is primarily oriented on staff planning and coordination as opposed to tactical procedures to be employed by the ATKHB. Further research concludes that there is another ALPHA publication dated June, 1990 entitled Multi-Service Procedures For the Joint Suppression of Enemy Air Defenses. While there is no mention of this manual superceding TT 100-44-1 (nor that it was used as a reference), this manual is approved by TRADOC and is listed as U.S. Army FM 90-15. It also, however, is oriented at the staff planning and coordination level, and contains few, if any procedures which would apply at the ATKHB or ATKHC mission execution level. SEAD therefore, although a doctrinal mission, lacks sufficient procedures, as well as conditions and standards to be considered adequately addressed.

9. **Surveillance.** Although stated as a doctrinal mission, there are no TTPs nor conditions and standards to support this requirement.

10. **Search and Rescue.** As stated earlier, Search and Rescue is not listed as a doctrinal mission for the ATKHB, and there are no TTPs to support it. This requirement, however, does exist in the MTP as task #01-2-0108, "Conduct Downed Aircrew Recovery Operations." As part of this task, the recovery aircrew must "plan and conduct the search." Oddly enough we have here a case where there are tasks, conditions and standards for a mission that according to doctrine, the ATKHB will not perform.

From the above analysis, three conclusions can be drawn. First, it is apparent that ATKHB doctrine completely addresses the requirements of the ATKHB to conduct Attack and JAAT. This is not surprising given the cold war time frame during which the majority of these publications were written. The second conclusion, however, indicated areas which, although doctrinal requirements exist, there are voids in one or more of the areas of tactics, techniques and procedures, or in the MTP. The third conclusion is that, in the case of Search and Rescue, there are no doctrinal references nor TTPs for this mission, however, supporting tasks, conditions and standards do exist. The results of this first step in the analysis are graphically illustrated in Figure 22 below.

MISSION	DOCTRINE	TACTICS	TECH'S	PROC	MTP	OVERALL
ATTACK	●	●	●	●	●	●
AASLT SECTY	●	●	●	○	○	◐
AIR CBT	◐	◐	◐	○	●	◐
RECON	◐	○	○	○	○	○
SECTY	◐	○	○	○	○	○
JAAT	●	●	●	●	●	●
SPT'G FIRES	◐	○	○	○	○	○
SEAB	●	●	●	○	○	◐
SURVEILLANCE	●	○	○	○	○	○
SAR	○	○	○	○	●	○

 ADEQUATE
  MARGINAL
  INADEQUATE

Fig. 22. Adequacy of Current Publications to Support Stated Mission Requirements

This study will now proceed to the final step in the analysis. This will be a comparison of the results of the first step in the analysis, which determined the adequacy of existing doctrine to support stated mission requirements, to the NWO mission requirements previously identified in Chapter Four. The results of this comparison will indicate if, or how well each of these New World Order requirements is supported by current attack helicopter doctrinal and training publications.

Below is a review of the missions to be assessed. These missions were identified in Chapter Four as "documented requirements."

1. SHOW OF FORCE
2. AERIAL SECURITY (AASSLT/GRND OPNS)
3. RECONNAISSANCE/SURVEILLANCE
4. ATTACK
5. SEARCH AND RESCUE
6. SECURITY
7. SEAD
8. JAAT
9. AIR COMBAT
10. DEEP ATTACK/RAID

With only minor variation the NWO mission requirements match up very closely with those discussed in current doctrinal publications. In fact, when placed side by side, (See Figure 23 below), only one mission falls out as not being addressed in some form within current doctrine; "Show of Force." This mission is listed due to the psychological impact of the mere presence of attack helicopters. This has been proven to be a valuable tool as a deterrent during several military operations. Most recently this was apparent when approximately 500 Iraqi soldiers surrendered to an attack helicopter company during

Operation DESERT STORM and again during Operation RESTORE HOPE where the mere presence of attack helicopters caused vehicles and crowds of people gathered in the streets to immediately disperse.

CURRENT MSN REQMT

NWO MSN REQMT

ATTACK

ATTACK

AASLT SECTY

AERIAL SECURITY

AIR COMBAT

AIR COMBAT

RECONNAISSANCE

RECONNAISSANCE/SURVEILLANCE

SECURITY

SECURITY

JAAT

JAAT

SUPPORTING FIRES

(ACCOMPLISHED W/AERIAL SECURITY)

SEAD

SEAD

SURVEILLANCE

(ACCOMPLISHED W/RECONNAISSANCE)

SEARCH AND RESCUE

SEARCH AND RESCUE

SHOW OF FORCE

*RAID

*Covered in Current Doctrine By "Attack"

Fig. 23. Current vs. NWO Mission Requirements

As mentioned, although relatively minor, there are variations between current and NWO mission requirements. The first variation appears between the current mission "Air Assault Security" and the NWO mission of "Aerial Security." The difference here is that aerial security applies to air assault (or air movement) security as well as to ground

operations (referred to in current doctrine as "overwatch"). This includes convoys, watercraft and maneuvering ground forces. Inherent in this mission is the implied task to provide "supporting fires" if required.

The next variation appears in reconnaissance and surveillance. Currently these two missions are discussed individually. Surveillance, however, in the context of the NWO, is an element of reconnaissance. The rationale for this is the basic premise that both reconnaissance and surveillance are conducted for the same purpose--to obtain information on the enemy (and terrain). This is true whether the object is a critical line of communication, enemy avenue of approach, or a suspected drug manufacturing facility.

The third variation relates to the current doctrinal mission for the ATKHB to provide Supporting Fires. As mentioned, in the context of NWO mission requirements this mission would be conducted as part of Aerial Security, whether it be for a ground maneuver force, *convoy of humanitarian relief supplies* or air assault operation.

The final variation between current versus NWO mission requirements relates to the "Raid." In current doctrine, the raid is considered a submission or special purpose operation within the mission of "Attack," specifically "Deep Attack" or "Deep Operations." Because, however, of the extensive planning and resource requirements associated with this type of high-risk, high pay-off mission, it is listed as a separate and distinct mission. The fact that FMs 1-111 and 1-112 each dedicate separate 40-page appendices to this mission justifies the need for "Raid" to be addressed as a separate mission.

In considering the above variations, and with the addition of "Show of Force" as a doctrinal mission requirement we can reconstruct the previous assessment matrix to determine how well the NWO mission requirements are addressed in current ATKHB doctrinal and training publications. This matrix appears in figure 24 below.

MISSION	DOCTRINE	TACTICS	TECH'S	PROC	MTP	OVERALL
SHOW FORCE						
AERIAL SECTY						
RECON/SURV						
ATTACK						
SAR						
SECURITY						
SEAD						
JAAT						
AIR CBT						
RAID						

ADEQUATE
 MARGINAL
 INADEQUATE

Fig. 24. Adequacy of Current Publications to Support
NWO Mission Requirements

From this analysis one can see that there are still several "holes" or voids that must be filled before ATKHB doctrine could be considered totally adequate to support operations across the operational continuum. Most of these voids occur in the areas of tactics, techniques and procedures and in the MTP, which should not be surprising. It is after all easy to say attack helicopter units can perform any given mission, but much more difficult to describe just how those missions might be accomplished, much less what conditions and standards would indicate successful performance. This is not to say this is an acceptable situation. As previously mentioned, doctrine, to be effective must be supported by tactics, techniques and procedures which in turn must be trained to. Where this is not the case disaster is certain to follow. History is full of such examples.

The following chapter will discuss specific conclusions and will offer recommendations which will assist in developing comprehensive attack helicopter DTTP. The recommendations are intended to help ensure U.S. Army ATKHBs are thoroughly prepared to execute the wide range of operations they will be called upon to perform.

Endnotes

¹U.S. Army. FM 1-111, Aviation Brigades (August 1990): v

²U.S. Army. FM 1-100, Army Aviation in Combat Operations (February 1989):2-12.

³U.S. Army. FM 1-112, Tactics, Techniques and Procedures for the Attack Helicopter Battalion (February 1991) discusses Maritime operations as pertains to the OH-58D in Appendix J, "Kiowa Warrior Employment."

CHAPTER 8

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that overall, U.S. Army attack helicopter doctrine, tactics, techniques and procedures (DTTP), to include the training documents which support the DTTP, are marginally adequate in supporting the scope of attack helicopter operations in a multi-polar world. This conclusion is based on several shortcomings identified during the course of this study. These shortcomings fall essentially into two major areas. The first of these areas is the failure of U.S. Army aviation doctrine to fully support some of the basic principles required of a power-projection force in a New World Order—one of broadly diverse and ill-defined threats. Specifically, current doctrine fails to support the principles of *Versatility* and *Flexibility*, and only marginally supports the principle of *Adaptability*. This study attributes these shortcomings to the almost exclusive focus on the role of the ATKHB as strictly a maneuver element in an antiarmor role, against a pre-determined threat. The second major reason for this conclusion is due to a lack of TTPs and evaluative criteria to support training and doctrinal mission requirements. This applies to current doctrine, as well as those doctrinal mission requirements identified during this study as a result of the New World Order.

As the analysis in the previous chapter shows, almost every mission requirement is addressed at the doctrinal level. There are, however, many cases where no tactics, techniques, or procedures exist to carry out the doctrine, nor evaluative criteria in the form of conditions and standards to measure the proficiency of a unit to execute its doctrinal mission requirements.

Thus, where the volume of information should increase as the doctrinal base is expanded upon by a myriad of TTPs, what we see is just the opposite. In reality we currently have an inproportionately wide doctrinal base, while at the execution level the focus is very narrow. In other words, *there are more doctrinal requirements than there are tools available to execute them.*

The third problem area relates to terminology, and the inability to walk-through aviation and attack helicopter doctrinal manuals without becoming confused by the use of a large number of terms which are ill-defined and often contradict already defined doctrinal definitions.

No one will argue Army Aviation's resounding success in Operation DESERT STORM. Fortunately, Operation DESERT STORM fit existing ATKHB DTTP quite well. But what about a single attack helicopter company deployed on a NEO operation as part of an Aviation Task Force consisting of an assault helicopter company, an air cavalry troop and a medevac platoon? Or when a light infantry company is pinned down in the mountains, out of artillery range, and the immediate employment of attack helicopters is their only hope. Or when an aircraft goes down in enemy territory and SOF assets are not available to perform search and rescue? These are the types of scenarios that our DTTP must address in addition to those associated with operations in the traditional armor-rich environment. Doing so now will pay great dividends later.

Fortunately, circumstances have provided an opportune time to correct these deficiencies. As the New World Order begins to unfold and takes shape Army Aviation must take advantage of the insight it now has regarding the likely scenarios that attack helicopter units will likely become involved in. By doing so, Army Aviation must acknowledge that to be fully successful it must yield to new ways of doing business by expanding its focus of the doctrinal principles that governed attack helicopter employment

during the cold war period. In some scenarios this may mean reverting to some of the more decentralized support relationships typical of the early years in Vietnam.

Army Aviation must then, using the Warfighting Treatise as a model, rewrite its doctrinal manuals, from FM 1-100 down through the ATKHC MTP to reflect the ways the ATKHB will support Army Operations Doctrine. As this is done, emphasis must be placed on standardizing terminology as well as fundamental content, so that from top to bottom the doctrine is consistent and comprehensive. Specific recommendations are as follows:

1. **Use standard terminology.** Doctrinal and training publications must use the same terms consistently. Whenever possible, these terms should be used consistent with accepted DOD definitions. Where DOD definitions do not exist, terms defined in FM 101-5-1 should be used. Additionally, any terms used which are not defined by these sources must be defined in aviation doctrine and used consistently throughout. Currently, the terms "mission," "role," "task," "function," "purpose," "operation," "objective," and "capability" are used indiscriminantly and inconsistently among each of the aviation publications in describing what the ATKHB brings to the fight. An additional area that needs attention is the use of the terms "air combat," "air-to-air combat," "offensive air combat," "defensive air combat," "offensive counter air," "defensive counter air," "hasty air combat," and "deliberate air combat." These terms too are used interchangeably among the various aviation publications reviewed. Usage of the terms "reconnaissance," "counter-reconnaissance," "armed reconnaissance," and "surveillance" should also be reviewed to eliminate confusion and increase clarity of their meaning. "Armed reconnaissance" in particular, as used in aviation doctrine assumes an entirely new meaning than that approved for use by DOD.

Finally, the use of the word "commander" should be clarified. While FM 1-112 uses the terms "ATKHB commander" and "maneuver commander," other manuals,

particularly FM 1-100, uses "air maneuver commander" and "ground maneuver commander." This becomes confusing.

2. Synchronize ATKHB "primary purpose" and "mission statements."

There are currently differences among the various manuals as to what the primary roles and missions of the ATKHB are. An example of this can be found in the Aviation Warfighting Treatise which states, "the primary purpose of attack helicopter operations is the destruction of enemy armored and artillery units" while FM 1-100 states "the main purpose of Army Aviation attack operations is to defeat enemy armored, mechanized and helicopter forces." Another example of inconsistency is in FM 1-112 which states, "the primary mission of the ATKHB is the destruction of enemy armored, mechanized and other forces" while the Mission Training Plan states, "the ATKHC has three critical wartime missions--hasty attack, deliberate attack and air assault security." In addition to standardization, the general "mission statement" for the ATKHB should encompass its role across the spectrum of Army Operations Doctrine. Additionally, what appears as a mission or task in one manual should also appear in the others, to include the MTP, to help standardize mission training and evaluation throughout the Army. Once these issues are sorted out, a follow-on requirement exists to ensure that the rest of the combined arms capstone doctrinal manuals adequately and accurately address what the ATKHB brings to the table. In short, the entire array of doctrinal manuals addressing the attack helicopter battalion need to be cross-walked to ensure standardization.

3. Expand the "antiarmor" and "maneuver" mindset. While there is no question that an ATKHB is most effective in an armor-rich environment, there are several other, more likely scenarios in which the ATKHB, or elements thereof will be employed. This may include employment in a **fire support** role, purely a reconnaissance or surveillance role, or in maritime operations, to include providing suppressive fires in support of an amphibious assault landing. The bottom line is that attack helicopter DTTP

should focus less on terrain and more on the other elements of METT-T, particularly on the Enemy. These "non-traditional" roles must be addressed, particularly in the context of tactics, techniques and procedures. The current philosophy that TTP for large scale, mid-to-high intensity conflict can easily be adapted to fit any situation is an over-simplification and leaves precious resources to chance.

4. Allow for decentralized operations. Aviation doctrine must provide additional flexibility in regard to ATKHB command and control relationships and organization for combat. The current philosophy that an ATKHB must be employed as a battalion, and cannot be placed under the operational control of less than a brigade-sized ground maneuver element not only limits its flexibility, but fails to exploit the full benefits of the unequaled firepower and mobility attack helicopters are capable of providing. The New World Order has already demonstrated the need for decentralized operations as evidenced during operation RESTORE HOPE, where individual attack helicopter companies deployed as part of an Aviation Task Force. Additionally, these aircraft routinely operated in pairs, conducting reconnaissance, surveillance, convoy security, and as a show of force. It is likely that this type of arrangement will continue as the Army is committed in Operations Other Than War.

5. Include joint, combined, coalition, and interagency coordination tasks in the aviation brigade and battalion staff MTP and, where required, in the ATKHC and ATKHB (when published) MTPs. Additionally, include the requirement to serve as a TF headquarters in the brigade/battalion staff MTP.

6. In discussing fire support for ATKHB operations, FM 1-112 should indicate that the ATKHB may have an established support relationship provided through the aviation brigade fire support channels. FM 1-112 (p. 5-3) indicates only that the ATKHB receives its fire support from the supported maneuver brigade.

7. Develop TTPs for SEAD and include them in the TTP manual. As a "primary mission," SEAD should be addressed in the ATKHB TTP manual. As it stands, the reader is referred to another manual, which is not only hard to find, but is outdated, and fails to adequately address the specifics of SEAD at the execution level.

8. Include reconnaissance/surveillance, security, show of force and combat search and rescue as attack helicopter doctrinal missions, and develop TTP's and conditions and standards as required to support each of these missions.

The implementation of the above recommendations will not only improve the effectiveness of the ATKHB, but will add to the quality and overall credibility of the Aviation Branch as a whole.

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